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ABSTRACT

This statistical report responds to a request by Congress for a report on educational equity for girls and women. The report assembles a series of indicators that examine the extent to which males and females have access to the same educational opportunities, avail themselves of these opportunities, perform at the same level, succeed at the same rate, and obtain the same benefits. Data are drawn mainly from surveys conducted by the National Center for Education Statistics. The report begins with an overview that summarizes the major findings. A series of 44 indicators follows, beginning with preparation for school and moving through elementary and secondary education to postsecondary education, with a consideration of outcomes of education. Data show that in school and in college females are now doing as well or better than males on many indicators, and that the large gaps in educational attainment that once existed between men and women have in most cases been eliminated, and in others have significantly decreased. Women continue to lag behind males in mathematics and science achievement in high school, and they are less likely to major in these fields in college. Women are still under-represented in doctoral and first-degree professional programs, although they have made substantial gains in the last 25 years. (Contains 57 tables and 63 figures.) (SLD)

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Trends In EDUCATIONAL EQUITY of Girls & Women

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U.S. Department of Education
Office of Educational Research and Improvement

NCES 2000-030

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Trends In
EDUCATIONAL EQUITY
of Girls & Women

Trends in Educational Equity of Girls & Women

Introduction

Congress, under the Women's Educational Equity Act provisions (§Title V, Part B) of the Elementary and Secondary Education Act of 1965 (as amended in 1994), requested the Secretary of Education to prepare a report on the status of educational equity for girls and women in the United States. This statistical report responds to that request by assembling a series of indicators that examine the extent to which males and females have access to the same educational opportunities, avail themselves equally of these opportunities, perform at the same level, succeed at the same rate, and obtain the same benefits.

The data for the indicators are drawn primarily from surveys conducted by the National Center for Education Statistics (NCES), although several other sources of national and international data are used as well. Although these indicators provide valuable information on many aspects of educational equity, some important issues cannot be addressed with available nationally representative data. Examples of such issues include the extent to which sexual harassment undermines the ability of schools to provide a safe and comfortable learning environment, the extent to which textbooks and other classroom materials reflect the experiences of women, and whether girls and young women are encouraged to challenge themselves in their educational pursuits, especially in mathematics and science.

The report begins with an overview that summarizes the report's major findings. A series of 44 indicators follows, which examine various aspects of educational equity, beginning with preparation for school, moving through elementary and secondary education, postsecondary education, and then finally considering educational outcomes. Each indicator shows the status of females relative to males and, in some cases, further breakdowns, such as by race–ethnicity, are included as well. However, the report focuses generally on overall comparisons between males and females, not on the experiences of various subgroups, which may show different patterns.

The data presented in this publication show that in school and in college, females are now doing as well as or better than males on many of the indicators of educational attainment, and that the large gaps in educational attainment that once existed between men and women have in most cases been eliminated and, in others, have significantly decreased. Nevertheless, women continue to lag behind males in mathematics and science achievement in high school and are less likely to major in these fields in college. Women are still underrepresented in doctoral and first-professional degree programs, although they have made substantial gains in the past quarter century. These differences may have labor market consequences.

Preparation for School

Certain kinds of preschool experiences, such as participating in preprimary programs and engaging in early literacy activities with parents, are widely believed to help prepare young children for the more structured learning that takes place in elementary school. Therefore, whether boys and girls have the same access to these kinds of opportunities is of interest from an educational equity standpoint.

- *Boys and girls start school on a similar footing in terms of at least some learning opportunities. In some other areas, girls appear to start school ahead.*

Girls and boys appear to have similar access to the types of opportunities that help prepare them for school. In 1996, 67 percent of all girls and 65 percent of all boys ages 3–5 were enrolled in center-based programs or kindergarten (about the same percentages as in 1991; *Indicator 1*).

At home, 84 percent of the girls and 82 percent of the boys in this age group had been read to three or more times in the past week; 82 percent of both boys and girls had been told a story at least once in the past week; and 38 percent of each had visited a library at least once in the past month. For both boys and girls, participation in reading activities generally increased between 1991 and 1996 (*Indicator 2*).

Although girls and boys have similar participation rates in activities that may prepare them for school, girls ages 3–5 are more likely than boys in this age group to demonstrate early literacy and small motor skills, such as being able to write their own name or hold a pencil correctly, that are essential to the accomplishment of many academic tasks. Additionally, boys ages 3–5 are more likely than girls of this age group to show signs of developmental difficulties, such as physical activity, attention, or speech difficulties.[1]

Elementary and Secondary Education

Because school attendance is generally compulsory between ages 6 and 16, equal access to schooling at the elementary and secondary levels is not at issue. However, whether males and females have access to the same types of educational opportunities, take similar advantage of these opportunities, and achieve at the same levels while in school are different questions. Data on various aspects of the elementary and secondary school experiences of males and females—such as their progress through school, academic performance, access to computers, and participation in extracurricular activities—provide some indication of the extent to which there is equal access to educational opportunities.

Progress through School

Aspects of progress through school that can be measured include promotion from grade to grade, exposure to certain problems encountered along the way, and high school completion rates. In each of these areas, female students have done as well as or better than their male peers.

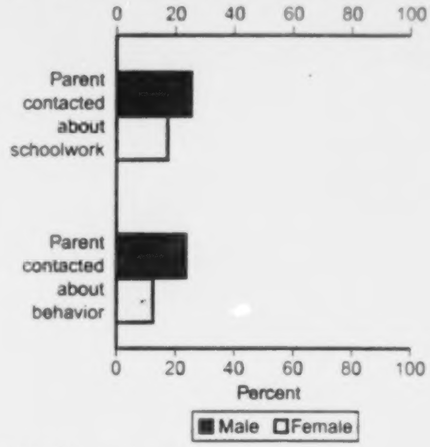
- *Girls seem to have fewer problems with school in the early grades than do boys.*

Evidence suggests that girls are perceived as adjusting more readily than boys to formal schooling. Among children in grades 1–3 in 1995, girls were more likely than boys to be described by their parents as near the top of their class (51 percent versus 41 percent; *Indicator 6*). In addition, girls were less likely than boys to have their parents contacted by their schools about problems with their behavior or schoolwork (figure 1).

In 1995, girls ages 5–12 were less likely than boys of this age group to have repeated a grade since starting school (5 percent versus 8 percent; *Indicator 15*). Also in 1995, about half as many girls as boys in grades 1–12 were identified as having a learning disability (2 percent versus 5 percent; *Indicator 11*).

- *Females and males are about equally likely to drop out of high school.*

Figure 1. Percentage of students in grades 1–3 with selected problems at school: 1995



SOURCE: *Indicator 6.*

Fewer students, both male and female, are dropping out of high school now than in the past. In 1972, the status dropout rate for 16- to 24-year-olds (i.e., the percentage who had not completed high school and were not enrolled in school) was 14 percent for males and 15 percent for females (*Indicator 12*). By 1997, the rates had declined to 12 percent for males and 11 percent for females. Between 1972 and 1997, the dropout rates for both males and females decreased for every racial–ethnic group except Hispanics. Among Hispanics, the female dropout rate declined but the male rate did not change significantly.

Young females who give birth while still of high school age are much less likely than their peers to complete high school (*Indicator 13*). Among 1988 female 8th-graders, the high school completion rate as of 1994 was 54 percent for those who had a child before their scheduled graduation date. In contrast, 94 percent of 1988 8th-graders who had no children by 1994 and 74 percent of those who had their first child between 1992 and 1994 had completed high school. Hispanic females in this cohort who had a child before 1992 were particularly at risk; their completion rate was 37 percent, compared with 63 percent for black, non-Hispanics and 57 percent for white, non-Hispanics.

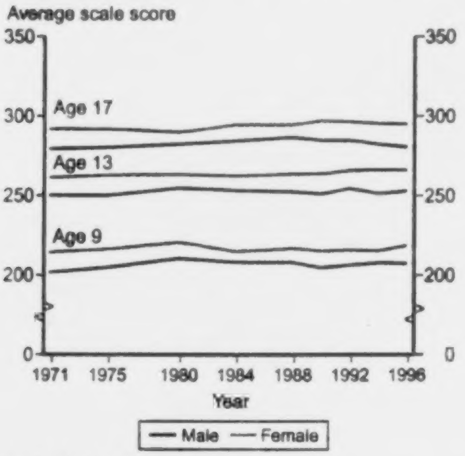
Academic Performance

Academic performance is a key measure of school success because doing well in school opens doors to postsecondary education and to well-paying jobs. For females to have the same opportunities as males in postsecondary education and in the labor market, it is important for them to be equally well prepared academically. Overall, females have done much better than males in reading and writing but have generally, though not always, lagged behind in science and mathematics. Concern exists that this gap in science and mathematics may give them less access to highly skilled jobs, although there are no data to compare this disadvantage with the possible disadvantage faced by males because of their lower reading and writing skills.

- *Females have consistently outperformed males in reading and writing.*

Reading and writing are basic skills required for most jobs and for functioning in contemporary society. Beginning in 1971 and continuing through every year of assessment, females ages 9, 13, and 17 have tested higher than their male peers in reading assessments administered as part of the National Assessment of Educational Progress (NAEP) (figure 2 and *Indicator 4*).

Figure 2. Average scale scores in reading for students ages 9, 13, and 17: 1971–96



SOURCE: *Indicator 4.*

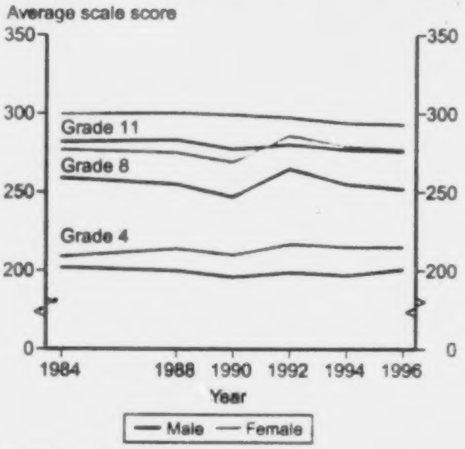
Females in grades 4, 8, and 11 have outperformed their male peers in writing as well since 1988 (figure 3). Differences in male and female writing achievement have been relatively large, with male 11th-graders scoring at about the same level as female 8th-graders in 1996.

Consistent with their better performance on reading and writing achievement tests, females were much more likely than males to take Advanced Placement (AP) exams in English and foreign languages in 1997 and to score 3 or higher, which usually allows them to receive college credit (figure 4 and *Indicator 8*).

- *There are more gender differences favoring male students in mathematics and science.*

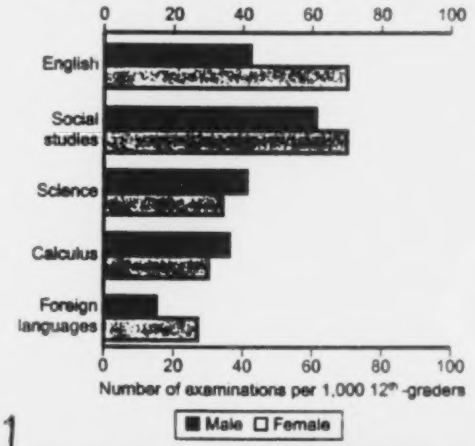
Proficiency in science and mathematics has become particularly important, as jobs in our technological society increasingly require workers to use scientific knowledge and complex mathematics skills to solve problems. Between 1973 and 1996, females ages 9 and 13 were usually more likely to score lower than males in science. At age 17, males have almost always outper-

Figure 3. Average scale scores in writing for students in grades 4, 8, and 11: 1984–96



SOURCE: *Indicator 4.*

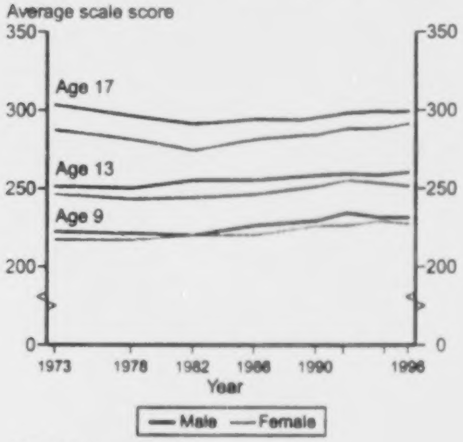
Figure 4. Number of AP examinations taken per 1,000 12th-graders, by subject area: 1997



SOURCE: *Indicator 8.*

formed their female peers, but the gender gap in science proficiency has narrowed for 17-year-olds in recent years (figure 5 and *Indicator 5*). In addition to scoring higher in the NAEP assessments, males were more likely than females to take AP examinations in science in 1997 and to score 3 or higher (*Indicator 8*).

Figure 5. Average scale scores in science for students ages 9, 13, and 17: 1973–96



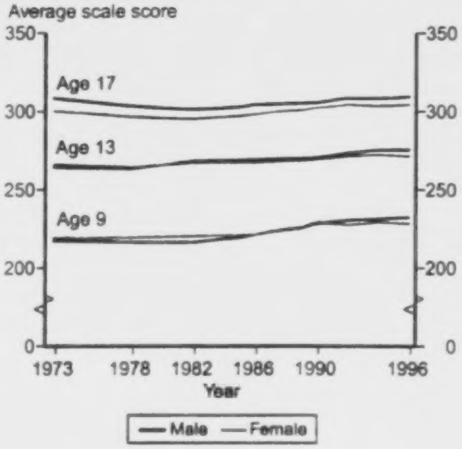
SOURCE: *Indicator 5.*

The situation in mathematics has been somewhat different. From 1973 to 1994, gender differences in mathematics scores did not exist for 9- and 13-year-olds (figure 6 and *Indicator 5*). Then, in 1996, the achievement scores of males slightly exceeded those of females at both ages because of increases in performance for males. In other words, higher mathematics performance among younger males is a recent phenomenon. Among 17-year-olds, males have achieved significantly higher average mathematics proficiency scores than females in some, but not all, years.

Gender differences in mathematics and science proficiency also have been observed for countries participating in international studies. In 1995, in general, boys and girls performed similarly in mathematics and science around the 4th grade in about half of the countries, with differences emerging more systematically among older students (*Indicator 44*).[2] By the final year of secondary schooling, males performed better than females in both mathematics and science in most of the assessed countries, with the exception of mathematics in the United States.

- *Achievement gaps appear more closely related to attitudes than to coursetaking.*

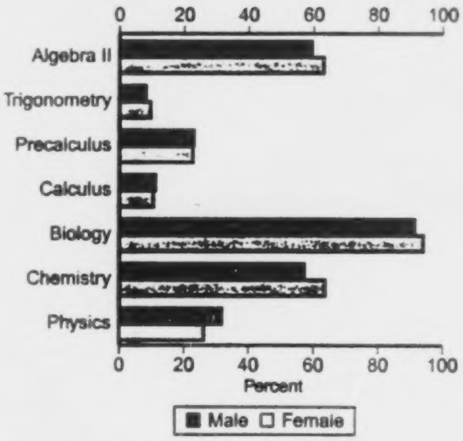
Figure 6. Average scale scores in mathematics for students ages 9, 13, and 17: 1973–96



SOURCE: *Indicator 5.*

Overall, females and males take similarly challenging academic programs. Female high school graduates in 1998 were at least as likely as their male peers to have taken upper-level mathematics classes such as algebra II, trigonometry, precalculus, and calculus (figure 7 and *Indicator 7*). They were more likely than males to have taken biology and chemistry.

Figure 7. Percentage of high school graduates who took selected courses in high school: 1998

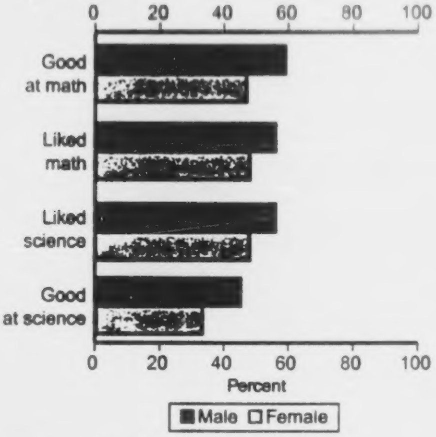


SOURCE: *Indicator 7.*

Some male and female views about mathematics and science differed depending on grade level. In 1996, the percentages of 4th-graders liking mathematics and science did not vary by gender (*Indicator 22*). Among 8th- and 12th-graders, however, females were less likely than males to like these subjects (figure 8). At all three grade levels, females were less likely than males to think that they were good at mathematics and science.

In 1996, females appeared to have less confidence than males that they could do well in these subjects. In 8th and 12th grades, females were less likely than males to think that anyone who tries can do well in mathematics, and in 12th grade, they were more likely than males to think that science was a hard subject.

Figure 8. Percentage of 12th-grade students agreeing with statements about mathematics and science: 1996



SOURCE: *Indicator 22.*

Computer Usage

The computer has become an important tool in the home, classroom, and workplace. If girls are less comfortable with this tool or have less access to a computer at home or at school, they could be at a disadvantage later in their educational careers or in the workplace. Based on available data, however, such fears appear to be largely unfounded.

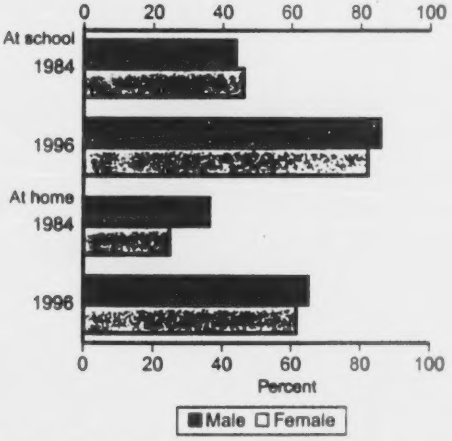
- *Females are just as likely as males to use computers at home and at school.*

Reflecting the rapid spread of technology throughout society, the percentage of students in kindergarten–6th grade using computers at home or at school more than doubled between 1984 and 1997 (from about 32 percent to 80 percent for girls), with no gender difference in the rates of computer use in either year (*Indicator 3*).

In 1997, there were no gender differences in the rate at which boys and girls in kindergarten–6th grade used computers at home (40 percent in each case) or at school (75 percent in each case). Girls using a computer at home were more likely than boys to use it for word processing and graphic design. However, there were no significant gender differences in the percentages using computers at home for e-mail, Internet access, computer games, school assignments, or educational programs, or in learning how to use a computer.

In 1984, male 11th-graders were more likely than their female peers to use a computer at home, although not at school (figure 9 and *Indicator 19*). By 1996, there were no significant gender differences in the rate of computer use at home or at school. Male 11th-graders were more likely than their female peers to use a computer at a friend's house and more likely to use a computer to play games, but there were no gender differences in their use of a computer to learn or to write stories or papers.

Figure 9. Percentage of 11th-grade students who reported using a computer, by location: 1984 and 1996



SOURCE: *Indicator 19.*

Extracurricular and Community Service Activities

Extracurricular and community service activities offer opportunities for students to develop skills that are important in the workplace and in society, such as team values, individual and group responsibility, physical strength and endurance, and a sense of community. Consequently, equal access to opportunities to develop

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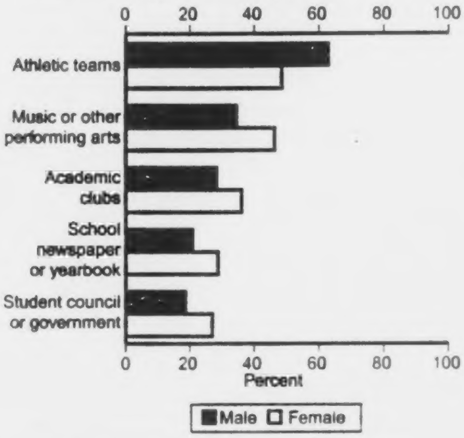
such skills is an important aspect of educational equity.

- *Males and females tend to participate in different types of extracurricular activities.*

In 1995, 49 percent of all female high school seniors played on an athletic team and 46 percent participated in music or other performing arts on an extracurricular basis (*Indicator 20*). Females were more likely than their male peers to participate in music or other performing arts, belong to academic clubs, work on the school newspaper or yearbook, or participate in the student council or government (figure 10). In contrast, male seniors were more likely than female seniors to play on athletic teams. It is difficult to assess the relative importance of the different types of skills learned in the various activities.

Figure 10. Percentage of high school seniors who reported participating in after-school activities, by type of activity: 1995



SOURCE: *Indicator 20.*

- *Females are more active than males in community service activities.*

In 1996, 53 percent of females in grades 6–12 reported participating in some sort of community service activities, and 29 percent reported that they did so regularly. In contrast, 45 percent of their male peers reported participating, and 22 percent reported participating regularly (*Indicator 18*).

Postsecondary Education

Women currently enjoy greater success than men do in attaining a postsecondary education. Women have higher aspirations than men while in high school, they are more likely to enroll immediately after graduating from high school, and they persist and complete degrees at higher rates. More than half of all bachelor's and master's degrees are awarded to women. Nevertheless, gender differences in majors still exist, with women bachelor's degree recipients much less likely than men to major in some sciences and engineering. Women also still lag behind men in enrollment in first-professional and doctoral programs but have made enormous gains in the past 25 years and are rapidly closing the gap between the genders.

Transition to Postsecondary Education

High school students' plans for further education indicate the importance that young people attach to higher education and their perceptions of their access to it. Aspirations are important, because they are a first step toward attainment. Both aspirations and enrollment rates of women have increased, and women are now ahead of men in both areas.

- *Female high school seniors tend to have higher educational aspirations than their male peers.*

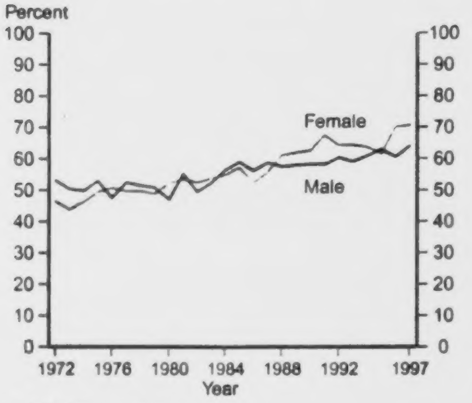
In 1980, male and female high school seniors had similar higher education aspirations, with 36 percent of males and 34 percent of females reporting that they definitely planned to graduate from a 4-year college program. By 1995, the proportions of male and female seniors with such plans had increased, but females were now considerably more likely than males to definitely plan to graduate from college (60 percent versus 49 percent; *Indicator 16*).

The pattern with respect to graduate and professional education was similar. Between 1980 and 1995, the percentage of female high school seniors who reported that they would definitely attend graduate or professional school doubled, from 10 to 22 percent, whereas the proportion of males with this aspiration increased more modestly, from 12 to 16 percent.

- *Females are more likely than males to enroll in college in the fall after graduating from high school.*

Increasing proportions of both men and women have been enrolling in college in the fall after finishing high school, but the enrollment rates for females have increased more. In 1972, males were more likely than females to enroll in a 2- or 4-year college immediately after graduating from high school (53 percent versus 46 percent), but by 1997, the reverse was true, with 70 percent of females and 64 percent of males enrolling (figure 11 and *Indicator 17*).

Figure 11. Percentage of high school completers who were enrolled in college the October following high school: October 1972–97



SOURCE: *Indicator 17.*

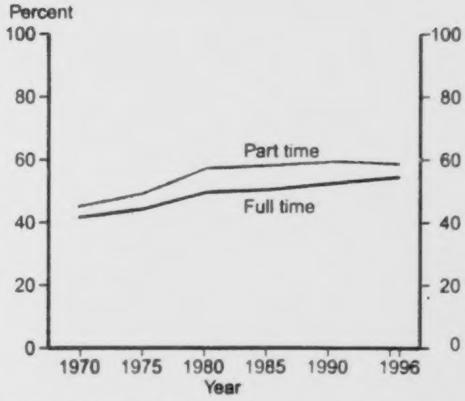
- *A majority of undergraduates are women.*

Since 1970, a steadily increasing proportion of the undergraduate population has been female. In 1970, 42 percent of all undergraduates were women, increasing to 56 percent in 1996 (*Indicator 25*). In part, this reflects the increasing numbers of young women who enter college immediately after completing high school, as just described, but it also reflects a sizeable number of older women returning to school.[3] Since the late 1970s, at least half of part-time students have been women, and since 1985 a majority of full-time enrollees have been women as well (figure 12). In 1996, women accounted for 58 percent of part-time enrollment and 54 percent of full-time enrollment.

- *Women make up the majority of graduate, but not first-professional, students.*

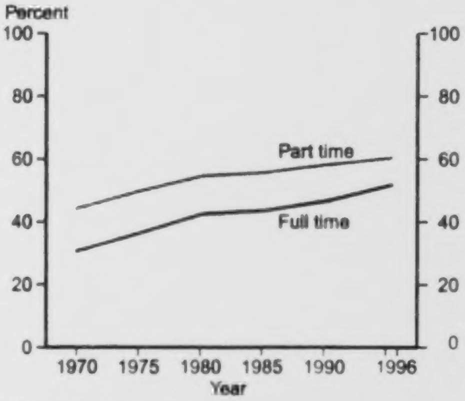
Women have made even greater gains at the graduate level than at the undergraduate level. In 1970, 39 percent of all graduate students were women (compared with 42 percent of undergraduates), but in 1996, 56 percent of graduate students were women, the same proportion as at the undergraduate level (*Indicator 25*). Female graduate students accounted for a greater percentage of part-time enrollment (60 percent) than of full-time enrollment (51 percent) in 1996 (figure 13).

Figure 12. Percentage of undergraduates who were female, by enrollment status: 1970–96



SOURCE: *Indicator 26.*

Figure 13. Percentage of graduate students who were female, by enrollment status: 1970–96



SOURCE: *Indicator 26.*

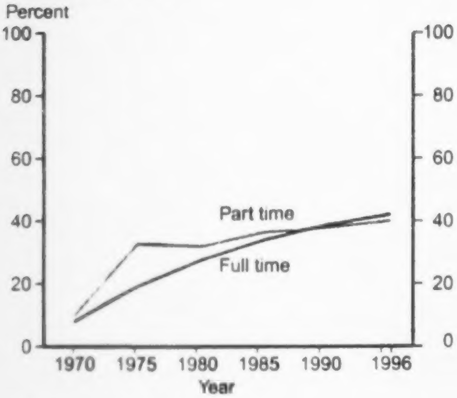
The majority of first-professional students are still men, but women have made dramatic gains in their representation since 1970. While 9 percent of the students in first-professional degree programs were women in 1970, by 1996, 40 percent of part-time and 42 percent of full-time first-professional students were women (figure 14).

Persistence and Attainment

Although enrollment in postsecondary education is one indicator of access, completion of postsecondary programs is a more important indicator of personal success and an education climate that fosters success for all.

- *Women are more likely than men to persist and attain degrees.*

Figure 14. Percentage of first-professional students who were female, by enrollment status: 1970–96



SOURCE: *Indicator 26.*

Among freshmen who enrolled in a college or university for the first time in 1989–90 seeking a bachelor's degree, a greater percentage of women (50 percent) than men (41 percent) had earned a bachelor's degree by 1994 (*Indicator 26*). A greater percentage of men than women were still enrolled (20 percent versus 15 percent), so the difference in attainment rates might eventually be reduced. Similar proportions of men and women earned associate's degrees (about 5 percent) and certificates (3 percent and 4 percent, respectively).

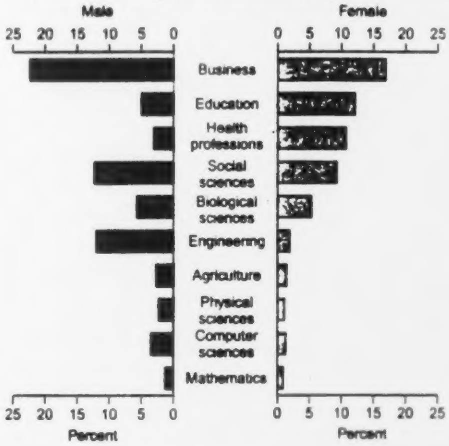
Considering degree attainment more generally (not just those who started in 1989–90), women earned more than half of all bachelor's degrees in 1996 (55 percent; *Indicator 28*). This statistic reflects the increasing numbers of female students in postsecondary education, as previously noted. Black and Hispanic women earned higher percentages of the bachelor's degrees in 1997 (64 percent and 57 percent, respectively) than white, non-Hispanic women (55 percent; *Indicator 29*).

The increase in participation by women in postsecondary education over the past 25 years has meant that, among the general population ages 25–29, a slightly larger percentage of women than men have a bachelor's or higher degree (29 percent versus 26 percent; *Indicator 35*).

- *Male and female bachelor's degree recipients tend to choose different majors.*

Both men and women were more likely to earn bachelor's degrees in business (22 and 17 percent, respectively) than in any other field in 1997 (figure 15 and *Indicator 30*). However, women were much more likely than men to earn degrees in education, health, and psychology, whereas men were more likely than women to earn degrees in engineering, physical sciences, and computer science. While the goals of education include more than just higher earnings, these choices may have long-term consequences in the labor market (some of the fields men choose tend to lead to higher paying jobs than the fields women choose).

Figure 15. Percentage distribution of bachelor's degrees conferred, by field: 1997



SOURCE: *Indicator 29.*

- *Women have made substantial progress at the graduate level overall, but still earn fewer than half of the degrees in many fields.*

Between 1970 and 1996, the percentage of master's, doctoral, and first-professional degrees earned by women increased substantially in all fields (*Indicator 31*). However, advanced degrees awarded still tend to follow traditional gender patterns, with women earning a majority of the master's and doctoral degrees in education and health, and men earning nearly three-quarters of the degrees in computer science and a higher proportion in engineering.

Women's progress toward earning an equal share of first-professional degrees has been notable. In 1970, 5 percent of law degrees, 8 percent of medical degrees, and 1 percent of dentistry degrees were awarded to women; in 1996, the corresponding percentages were 44, 41, and 36 percent.

- *Gender differences in participation rates in collegiate sports have narrowed.*

One final measure of women's equity at the college level is participation in NCAA-sponsored sports. Men still outnumber women in collegiate sports participation, but the gap has narrowed. Between 1982–83 (when detailed statistics on women's sports first became available) and 1996–97, participation increased by 61 percent for women, compared with 12 percent for men (*Indicator 34*).

Female athletes are more likely than male athletes to graduate in a timely fashion. Among women athletes who entered college in 1992, 68 percent graduated by 1998, compared with 52 percent of men.

Outcomes

An examination of gender equity in education requires considering the benefits men and women have received. Higher levels of educational attainment are associated with certain labor market outcomes, such as higher labor force participation rates, higher rates of employment, and higher earnings. Labor market outcomes are not the only important outcomes of participation in formal education, of course, but they are the most readily measured with available national and international data.

- *Women ages 25–64 have lower labor force participation rates than men, regardless of education, but participation increases with education.*

In the United States, as in other selected large, industrialized countries (Canada, France, Germany, Italy, and the United Kingdom) in 1995, women ages 25–64 had lower labor force participation rates than men at all levels of education (*Indicator 41*). Labor force participation for women in this age group generally increased with educational attainment, however, narrowing the gap between men and women at higher education levels. Many factors enter into a woman's decision to enter the labor force, but these data suggest that increased education may provide more opportunities or economic incentives to do so.

- *Among adults ages 25–34, women are less likely than men to be employed, but the gap has narrowed over time.*

Although women have been less likely than men to be employed at all levels of educational attainment, gender gaps in employment rates have narrowed over time. For example, in 1971, 94 percent of men and 43 percent of women ages 25–34 with a high school diploma or GED were employed (a difference of 51 percentage points; *Indicator 36*). By 1997, 86 percent of men and 70 percent of women with this level of education were employed, narrowing the gap to 16 percentage points. In most years between 1971 and 1997, the gender gap decreased as education level increased. In other words, women with higher levels of educational attainment were employed at rates that were more similar to those of men than were women with lower levels of attainment. Pursuing higher levels of education may help women achieve equality with men in the paid labor force.

- *Women with bachelor's degrees tend to earn less than men with the same level of educational attainment, but the gap is narrowing.*

Women's median annual earnings for full-time, year-round workers are lower than those of their male counterparts with the same level of educational attainment. However, women have begun to achieve more equality with men in terms of earnings. In 1970, women ages 25–34 with a bachelor's degree had a median annual salary that was equivalent to 57 percent of what their male peers earned; in 1997, it was 78 percent (*Indicator 38*). The male–female difference in annual earnings for full-time, year-round workers may be attributable at least in part to different occupations and tenure.

The median annual starting salary (in constant 1997 dollars) for 1992–93 college graduates who were working full time and not enrolled in additional education was $26,700 for males and $22,500 for females (*Indicator 37*). Differences in major field of study account for some, but not all, of this difference, and job choices may account for some as well. For example, for those who majored in the humanities, computer sciences and engineering, females had a median starting salary that was similar to their male peers. For students who majored in business and management, females had a median starting salary that was about $4,000 less than their male peers.

- *Women generally receive a greater earnings advantage from postsecondary education than men.*

Higher levels of educational attainment bring proportionally larger benefits for women than for men. Women ages 25–34 with a bachelor's degree or higher who worked full time year-round in 1997 earned 61 percent more than their counterparts with no more than a high school education. The earnings advantage for their male counterparts was 54 percent (*Indicator 39*).

- *Women are more likely than men to participate in adult education.*

Women not only have made important progress in terms of their formal educational attainment but also have been actively involved in adult education activities. In 1995, the overall participation rates of women were higher than those of their male peers (42 percent versus 38 percent; *Indicator 40*), with the most sizeable gender difference being the greater percentage of women than men participating in personal development activities (24 percent versus 16 percent).

Conclusion

Various indicators have been used here to examine the extent to which females and males have access to similar educational opportunities, take advantage of those opportunities in the same way, and have similar educational outcomes. By most of these measures, females are doing at least as well as males.

Girls and boys begin school with similar preschool and early literacy participation experiences. In the early elementary years, girls are less likely than boys to repeat grades and seem to have fewer problems with schoolwork and behavior. Over time and throughout their school years, female students have consistently outperformed their male peers in the crucial areas of reading and writing, and the gap between the genders remains large.

Females have tended to lag behind males in science and mathematics, especially as they get older. By 8th grade, females are less likely than males to say they like mathematics and science and less likely to say they are good at these subjects. This happens despite the fact that young men and women take equally challenging mathematics and science coursework in high school (with the exception of physics, which females are slightly less likely than males to take).

Since the early 1970s, women have made dramatic gains in postsecondary education in terms of enrollment and attainment. Female high school seniors tend to have higher educational aspirations than their male peers and are more likely to enroll in college immediately after graduating from high school. Women are also more likely than men to earn a bachelor's degree within 5 years. The majority of all undergraduates are women, and this has been true for two decades.

Gender differences in college majors persist, however, with women still concentrated in relatively lower paying fields like education and men more likely than women to earn degrees in engineering, physics, and computer science. Women are still underrepresented in professional schools, but have made substantial progress.

In terms of labor market outcomes, the findings are mixed, and depend on factors beyond the reach of the education system. Women ages 25–34 are less likely than their male counterparts to be employed, but it is unknown to what extent this is by choice. The gap between males and females in employment rates has narrowed over time. In addition, women with higher levels of educational attainment are employed at rates more similar to those of men than are women with lower levels of attainment. Women tend to earn less than men with similar educational attainment, but this may partly reflect women's patterns of labor market participation and taking certain kinds of jobs.

Notes

[1] K. Chandler, J. West, and E. Hausken, *Approaching Kindergarten: A Look at Preschoolers in the United States* (NCES 1995-280) (Washington, DC: U.S. Department of Education, National Center for Education Statistics, 1995).

[2] Grades are not identical among all participating countries. See *Indicator 44* for details.

[3] T. Snyder, C. Hoffman, and C. Geddes, *Digest of Education Statistics, 1998* (NCES 1999-036) (Washington, DC: U.S. Department of Education, National Center for Education Statistics, 1999), table 174.

Preprimary education enrollment

Girls and boys have similar rates of participation in preprimary programs.

Involving students in preprimary programs beginning at earlier ages may provide them with valuable experiences that will help them to start elementary school better prepared to learn. Between 1991 and 1996, the percentages of 3- to 5-year-olds enrolled in center-based programs and kindergarten were fairly constant. There were no differences between the percentages of boys and girls enrolled in preprimary programs, regardless of age, during this same time period.

In 1996, age was positively associated with enrollment in preprimary programs for both boys and girls. For example, 42 percent of 3-year-old girls, compared with 66 percent of 4-year-old girls and 93 percent of 5-year-old girls were enrolled in these programs.

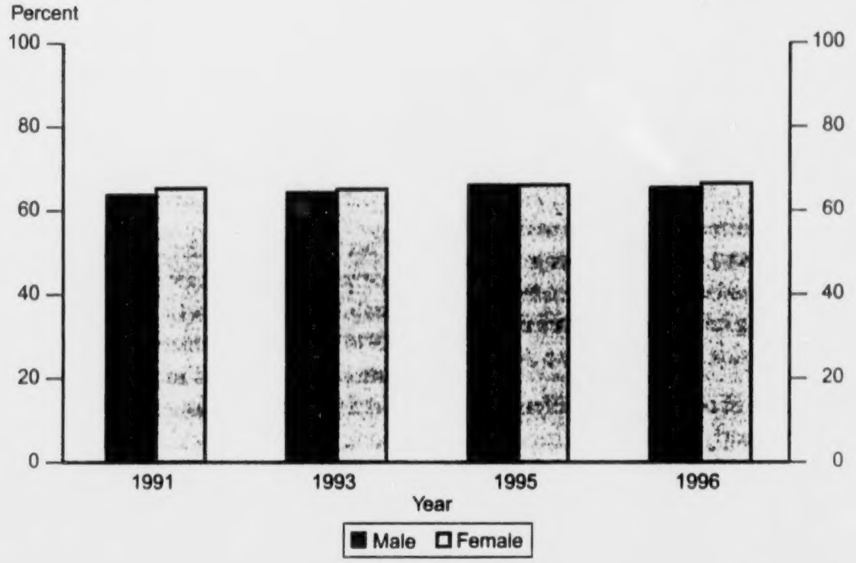
Percentage of 3- to 5-year-olds enrolled in center-based programs and kindergarten, by sex: 1991, 1993, 1995, and 1996

Year	Total	3-year-olds	4-year-olds	5-year-olds
Total				
1991	64.5	42.6	61.7	89.8
1993	64.7	40.6	63.1	91.1
1995	66.0	41.0	65.4	93.2
1996	65.9	42.6	64.4	92.3
Male				
1991	63.7	41.1	61.7	89.6
1993	64.3	39.4	62.1	91.2
1995	66.0	39.6	65.1	92.8
1996	65.3	43.1	63.2	91.7
Female				
1991	65.3	44.1	61.7	90.0
1993	65.1	41.8	64.2	91.0
1995	66.1	42.4	65.6	93.8
1996	66.5	42.1	65.6	92.9

NOTE: This analysis includes children ages 3–5 who were not enrolled in first grade. Age is as of December 31 of the prior year. Center-based programs include Head Start, nursery school, and pre-kindergarten.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), 1991 (Early Childhood Education File), 1993 (School Readiness File), 1995 (Early Childhood Program Participation File) and 1996 (Parents and Family Involvement in Education File).

Percentage of 3- to 5-year-olds enrolled in center-based programs and kindergarten, by sex: 1991, 1993, 1995, and 1996



NOTE: This analysis includes children ages 3–5 who were not enrolled in first grade. Age is as of December 31 of the prior year. Center-based programs include Head Start, nursery school, and pre-kindergarten.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), 1991 (Early Childhood Education File), 1993 (School Readiness File), 1995 (Early Childhood Program Participation File) and 1996 (Parents and Family Involvement in Education File).

Early reading activities in the home

A similar proportion of males and females participated in reading activities with their parents or family members in 1996.

Participating in early reading activities provides valuable developmental experiences for young children that may enable them to start school better prepared to learn. In 1991, 1993, 1995, and 1996, a similar percentage of males and females participated in early reading activities, such as being read to three or more times in the past week, being told a story at least once in the past week, or visiting a library in the past month.

The percentage of both males and females who participated in early reading activities was generally higher in 1996 than in 1991. For example, in 1996, 83 percent of children were read to three or more times in the past week and 82 percent were told a story once in the past week, an increase of about 10 percentage points each from 1991. However, there was no increase in the percentage of children who visited a library with a parent or family member during this period.

There were no gender differences in the overall patterns of participation in reading activities for males and females in 1991, 1993, 1995, and 1996. However, there were some differences among the various race–ethnicity groups, for both males and females in 1996. For example, during this period, white males and females were generally more likely than their black and Hispanic peers to have been read to three or more times in the past week.

Percentage of children ages 3–5 who participated in various reading activities with a parent or family member, by sex and race–ethnicity: 1991, 1993, 1995, and 1996

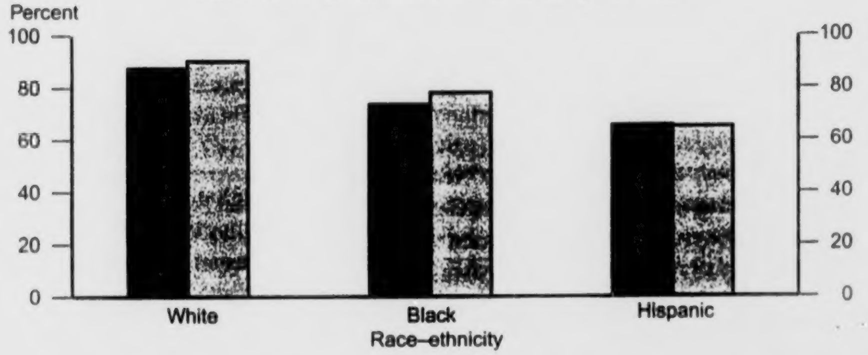
Sex and race–ethnicity	Read to three or more times in the past week				Told a story at least once in the past week				Visited a library in the past month			
	1991	1993	1995	1996	1991	1993	1995	1996	1991	1993	1995	1996
Total	**71.4**	**77.7**	**83.1**	**82.9**	**72.0**	**74.7**	**81.4**	**82.0**	**36.6**	**38.8**	**41.2**	**38.2**
Male	72.6	76.9	82.3	81.5	72.5	74.1	80.4	81.7	37.6	38.3	39.7	38.3
White	78.9	83.9	88.1	87.6	73.7	75.5	82.6	83.2	41.7	41.8	43.8	43.1
Black	60.5	63.5	72.3	73.5	68.2	69.1	76.3	77.5	30.9	30.7	31.3	31.7
Hispanic	54.9	58.9	62.2	65.5	69.6	72.3	73.4	79.1	24.5	26.5	25.0	27.0
Female	70.3	78.5	84.0	84.3	71.6	75.2	82.3	82.2	35.6	39.4	42.7	38.0
White	76.5	84.0	89.9	90.3	73.9	75.7	85.3	84.6	39.8	42.5	46.5	41.9
Black	57.6	70.5	75.0	78.1	63.8	75.6	72.5	75.8	24.7	33.3	36.6	36.3
Hispanic	51.3	61.7	60.9	65.0	67.4	70.7	76.8	79.5	24.4	29.4	30.9	24.6

NOTE: This analysis includes children ages 3–5 who were not enrolled in first grade.

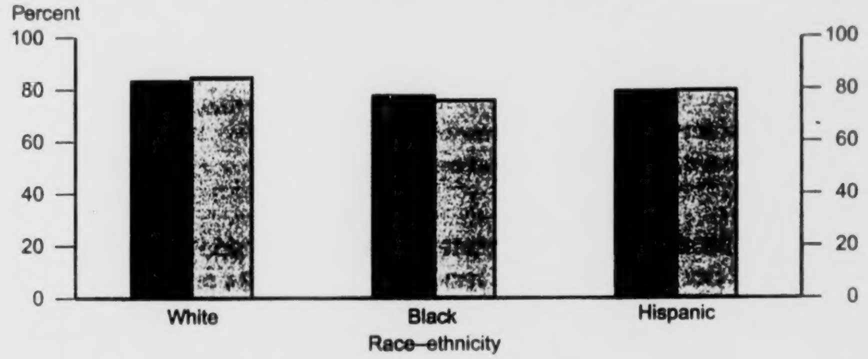
SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), 1991 (Early Childhood Education File), 1993 (School Readiness File), 1995 (Early Childhood Program Participation File), and 1996 (Parent and Family Involvement in Education File).

Percentage of children ages 3–5 who participated in various reading activities with a parent or family member, by sex and race–ethnicity: 1996

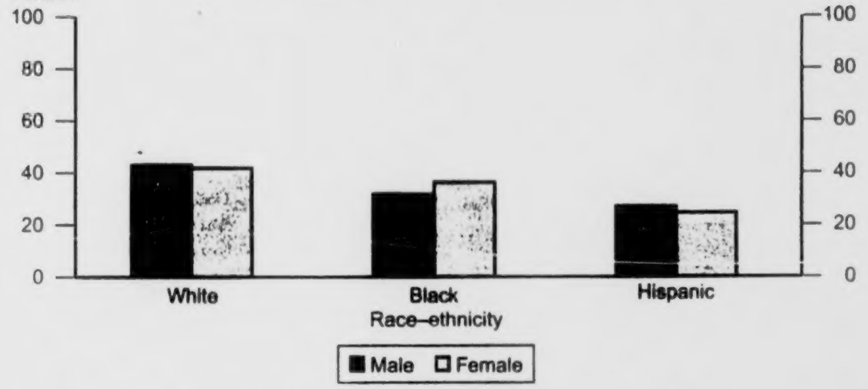
Read to three or more times in the past week



Told a story at least once in the past week



Visited a library in the past month



NOTE: This analysis includes children ages 3–5 who were not enrolled in first grade.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), 1996 (Parent and Family Involvement in Education File).

Use of computers by elementary students

Females enrolled in kindergarten through 6th grade were equally as likely as males to use a computer at school or at home in 1997.

In our increasingly technological society, computers are an essential tool. Exposure to computers in school or at home may help young people gain the computer literacy they will need to function effectively in society. Between 1984 and 1997, the percentages of males and females in kindergarten through 6th grade who used a computer at school or at home increased, rising from 34 percent for males and 32 percent for females in 1984 to 81 percent for males and 80 percent for females in 1997.

During this period, the percentage of students in kindergarten through 6th grade who used a computer at school almost tripled, increasing from 27 percent for both males and females in 1984 to 75 percent for both males and females in 1997. In addition, the percentage of students who used a computer at home also increased, rising from 13 percent for males and 10 percent for females in 1984 to 40 percent for both males and females in 1997.

In 1997, although the percentages of males and females in kindergarten through 6th grade who used a computer at home were similar, there were some differences in how they used the computer. In 1997, among all students who had a computer at home, females were more likely than males to use a computer for word processing and to work on graphic design. However, females and males were equally likely to use a computer to access the Internet, to work on school assignments, and to use educational programs.

Percentage of students in kindergarten through 6th grade who used a computer at school or at home, by sex and race–ethnicity: 1984 and 1997

	1984			1997		
By sex and race–ethnicity	Used a computer at school	Used a computer at home	Used a computer at home or at school	Used a computer at school	Used a computer at home	Used a computer at home or at school
Total	**26.9**	**11.2**	**32.8**	**75.0**	**40.0**	**80.5**
Male	27.3	12.5	33.5	75.2	40.2	80.8
White	32.0	15.4	39.5	80.3	50.5	86.9
Black	11.9	5.1	15.0	67.2	19.1	70.2
Hispanic	14.7	4.2	17.5	62.8	17.1	66.3
Female	26.5	9.8	32.0	74.8	39.8	80.1
White	30.6	11.8	37.0	80.3	51.5	87.0
Black	14.3	5.1	17.9	67.0	17.1	69.5
Hispanic	14.5	2.5	16.2	62.3	16.6	64.7

Percentage of students in kindergarten through 6th grade who used a home computer for various uses,* by sex: 1997

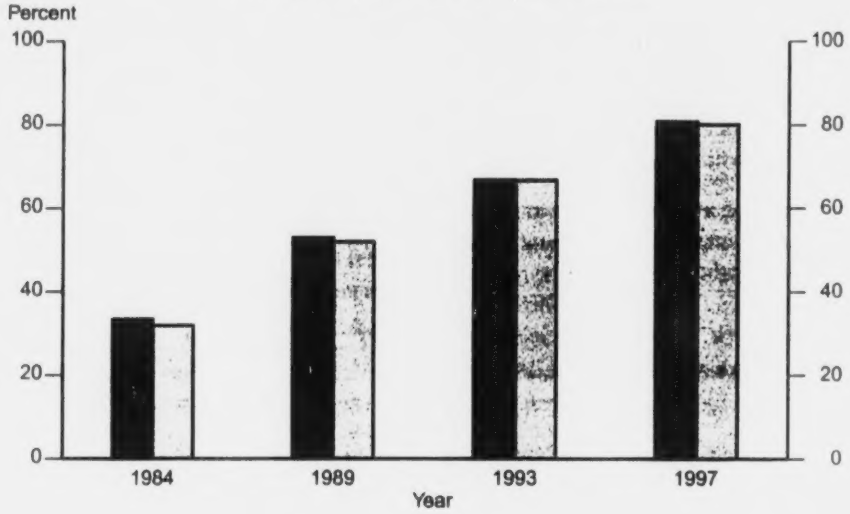
	Used a computer at home for:							
Sex	Word processing	E-mail	Play games	Graphics/ design	Internet	School assignment	Learning to use computer	Educational programs
Male	22.0	8.0	90.5	14.3	13.1	42.6	27.3	48.0
Female	28.0	8.8	88.7	17.4	12.4	42.3	28.1	50.4

* Percentages are based upon only those students who had home computers. Students may use a computer for more than one use; therefore, they may appear in more than one column.

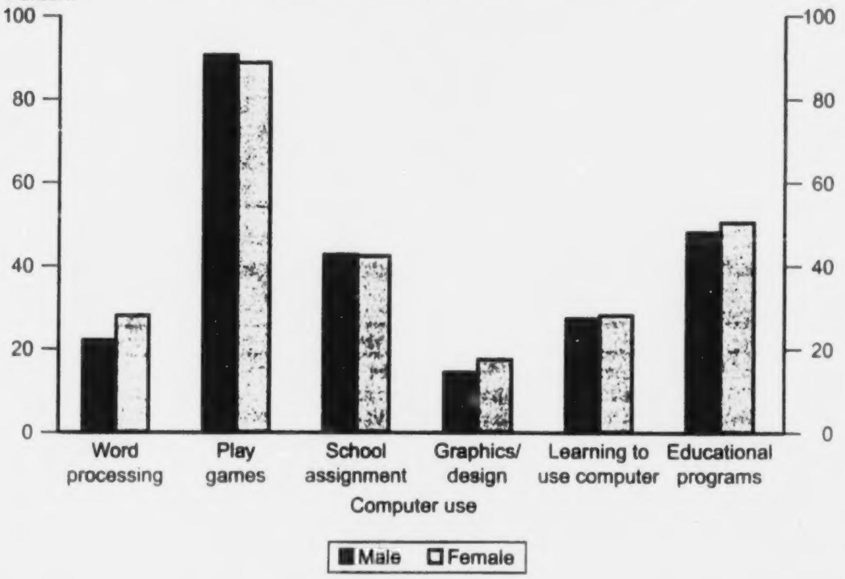
SOURCE: U.S. Department of Commerce, Bureau of the Census, Current Population Surveys, October 1984 and 1997.

Percentage of students in kindergarten through 6th grade who used a computer, by sex: 1984, 1989, 1993, and 1997

Used a computer at school or at home



Used a computer at home in 1997 for various uses:*



* Percentages are based on only those students who had home computers. Students may use a computer for more than one use; therefore, they may appear in more than one category.

SOURCE: U.S. Department of Commerce, Bureau of the Census, Current Population Surveys, October 1984, 1989, 1993, and 1997.

Reading and writing achievement

Female students consistently outperform male students in reading and writing.

Much emphasis has been placed on female performance in mathematics and science; however, less attention has been paid to females' superior performance in reading and writing.

Although reading scores of males and females have fluctuated somewhat in the past 23 years, females have continued to outperform males by substantial margins. In 1996, the differences in reading scores for 13- and 17-year-old males and females were about the same as those in 1971.

Females have consistently outperformed males in writing achievement at the 4th-, 8th-, and 11th-grade levels between 1988 and 1996. Differences in male and female writing achievement were relatively large. The writing scores of female 8th-graders were comparable with those of 11th-grade males. (See *NAEP 1996 Trends in Academic Progress*, 1997, p. 118)

Average scale scores in reading for students ages 9, 13, and 17, by sex: 1971–96

Sex	1971	1975	1980	1984	1988	1990	1992	1994	1996
Age 9									
Male	201	204	210	208	208	204	206	207	207
Female	214	216	220	214	216	215	215	215	218
Age 13									
Male	250	250	254	253	252	251	254	251	253
Female	261	262	263	262	263	263	265	266	265
Age 17									
Male	279	280	282	284	286	284	284	282	280
Female	291	291	289	294	294	297	296	295	294

Average scale scores in writing for students in grades 4, 8, and 11, by sex: 1984–96

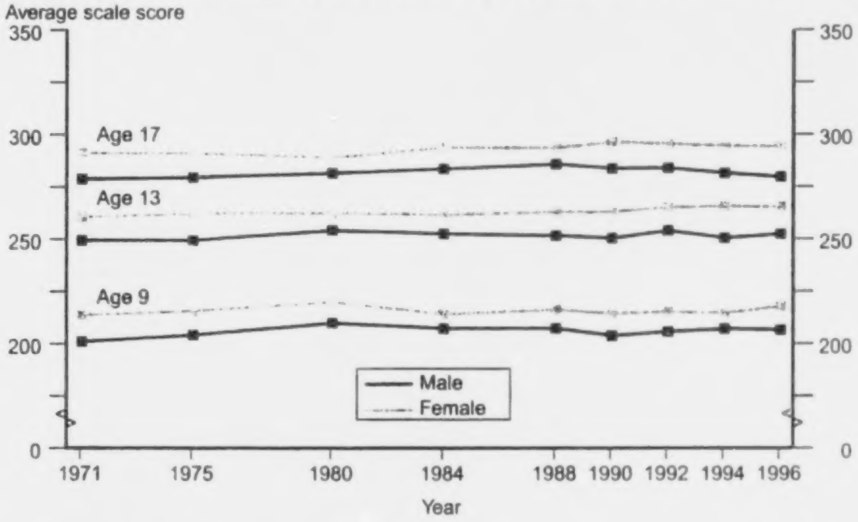
Sex	1984	1988	1990	1992	1994	1996
Grade 4						
Male	201	199	195	198	196	200
Female	208	213	209	216	214	214
Grade 8						
Male	258	254	246	264	254	251
Female	276	274	268	285	278	276
Grade 11						
Male	281	282	276	279	276	275
Female	299	299	298	296	293	292

NOTE: These test scores are from the National Assessment of Educational Progress (NAEP). Reading: Level 150, ability to do simple discrete reading tasks; level 200, partially developed skills and understanding; level 250, ability to interrelate ideas and make generalizations; level 300, implies ability to understand complicated information. Writing: Level 350, effective, coherent writing; level 300, complete, sufficient writing; level 250, beginning focused, clear writing; level 200: incomplete, vague writing; level 150, disjointed, unclear writing. Scale ranges from 0 to 500.

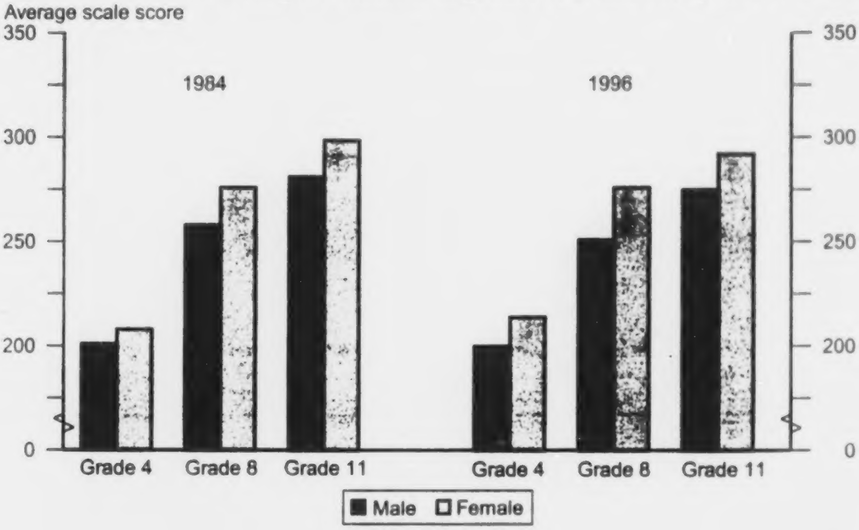
SOURCE: U.S. Department of Education, National Center for Education Statistics, *NAEP 1996 Trends in Academic Progress*, 1997.

Reading and writing achievement

Average scale scores in reading for students ages 9, 13, and 17, by sex: 1971–96



Average scale scores in writing for students in grades 4, 8, and 11, by sex: 1984 and 1996



NOTE: These test scores are from the National Assessment of Educational Progress (NAEP). Reading: Level 150, ability to do simple discrete reading tasks; level 200, partially developed skills and understanding; level 250, ability to interrelate ideas and make generalizations; level 300, implies ability to understand complicated information. Writing: Level 350, effective, coherent writing; level 300, complete, sufficient writing; level 250, beginning focused, clear writing; level 200: incomplete, vague writing; level 150, disjointed, unclear writing. Scale ranges from 0 to 500.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *NAEP 1996 Trends in Academic Progress*, 1997.

Mathematics and science achievement

Gender differences in mathematics and science achievement appear consistently at age 17.

There is a common perception that males perform better in mathematics and science than females. The data show a more complex picture of student achievement. Between 1973 and 1994, the academic achievement of females ages 9 and 13 has been similar to that of males in mathematics, while the achievement of female 17-year-olds was often lower than that of their male peers. However, in 1996, female 9- and 13-year-olds scored below males. Between 1973 and 1996, females ages 9 and 13 were usually more likely to score lower than males in science, while females age 17 always scored below their male peers. In both mathematics and science for 9- and 13-year-olds, scores of males and females have increased slowly, while the scores of 17-year-olds initially decreased but have increased since 1982.

In both mathematics and science, females have historically been further behind males at age 17 than at ages 13 and 9. However, recently the gap between male and female 17-year-olds has closed somewhat in mathematics and science. In contrast, while the mathematics scores of both males and females age 9 and 13 have been increasing over time, a gap between the scores of males and females has appeared. The gap between male and female 9- and 13-year-olds in science has remained unchanged.

Average scale scores in mathematics for students ages 9, 13, and 17, by sex: 1973–96

	1973	1978	1982	1986	1990	1992	1994	1996
Age 9								
Male	218	217	217	222	229	231	232	233
Female	220	220	221	222	230	228	230	229
Age 13								
Male	265	264	269	270	271	274	276	276
Female	267	265	268	268	270	272	273	272
Age 17								
Male	309	304	302	305	306	309	309	310
Female	301	297	296	299	303	305	304	305

Average scale scores in science for students ages 9, 13, and 17, by sex: 1973–96

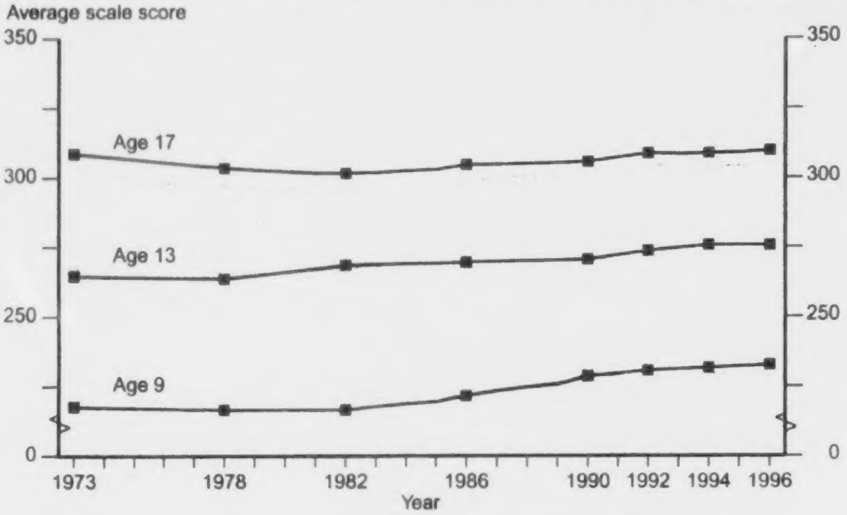
	1973	1978	1982	1986	1990	1992	1994	1996
Age 9								
Male	223	222	221	227	230	235	232	232
Female	218	218	221	221	227	227	230	228
Age 13								
Male	252	251	256	256	259	260	259	261
Female	247	244	245	247	252	256	254	252
Age 17								
Male	304	297	292	295	296	299	300	300
Female	288	282	275	282	285	289	289	292

NOTE: These test scores are from the National Assessment of Educational Progress (NAEP). The NAEP scores have been evaluated at certain performance levels. Mathematics: Level 150, simple arithmetic facts; level 200, beginning skills and understandings; level 250, numerical operations and beginning problem solving; level 300, moderately complex procedures and reasoning; level 350, multistep problem solving and algebra. Science: Level 150, knows everyday facts; level 200, understands simple scientific principles; level 250, applies general scientific information; level 300, analyzes scientific procedures and data; level 350, integrates specialized scientific information. Scale ranges from 0 to 500.

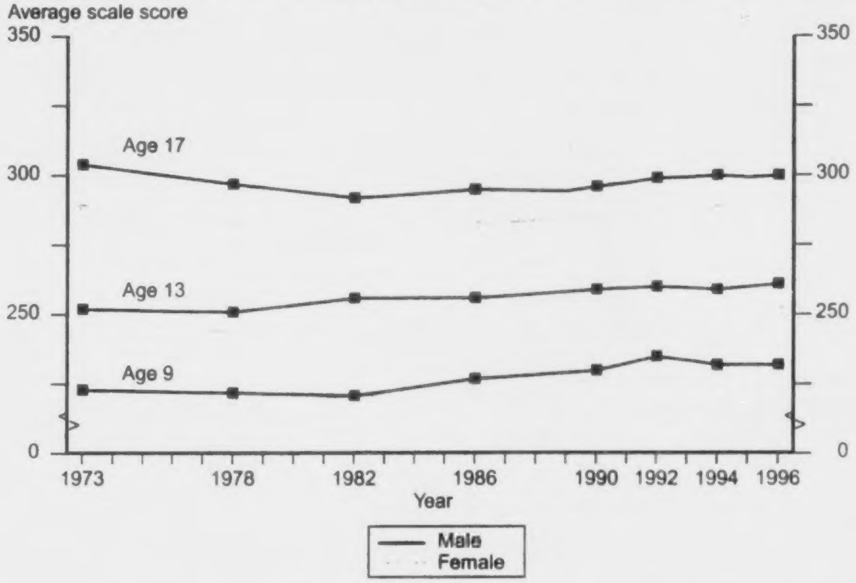
SOURCE: U.S. Department of Education, National Center for Education Statistics, *NAEP 1996 Trends in Academic Progress*, 1997.

Mathematics and science achievement

Average scale scores in mathematics for students ages 9, 13, and 17, by sex: 1973–96



Average scale scores in science for students ages 9, 13, and 17, by sex: 1973–96



NOTE: These test scores are from the National Assessment of Educational Progress (NAEP). The NAEP scores have been evaluated at certain performance levels. Mathematics: Level 150, simple arithmetic facts; level 200, beginning skills and understandings; level 250, numerical operations and beginning problem solving; level 300, moderately complex procedures and reasoning; level 350, multistep problem solving and algebra. Science: Level 150, knows everyday facts; level 200, understands simple scientific principles; level 250, applies general scientific information; level 300, analyzes scientific procedures and data; level 350, integrates specialized scientific information. Scale ranges from 0 to 500.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *NAEP 1996 Trends in Academic Progress*, 1997.

Parent perceptions of students

Females in elementary school are described as better performers by their parents.

When asked about their children's school performance, parents generally rated their children very high, and female students were more likely than male students to have their parents rate them near the top of their class.

For example, 51 percent of female students and 41 percent of male students had parents who rated them near the top of the class, while 5 and 8 percent of female and male students, respectively, had parents who rated them below the middle.

Male students were more likely than female students to have parents who reported that they were contacted by the school about their child's behavior or schoolwork. For example, 24 percent of male students had parents who reported being contacted about their child's behavior compared with 12 percent of female students.

Although parents' perceptions of their children's performance were very optimistic, there is evidence that the female advantage in school performance is real and persistent. A survey of high school seniors in 1992 found that a higher percentage of females ranked in the top levels of achievement. About 22 percent of male and 33 percent of female high school seniors were ranked in the top quartile among their peers. (Source: *U.S. Department of Education, 1992 NELS Followup.*)

Percentage distribution of students enrolled in grades 1–3, by sex, grade level, and parents' estimates of their child's class standing: 1995

	Male				Female			
Class standing	All	First grade	Second grade	Third grade	All	First grade	Second grade	Third grade
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Near top of class	41.4	41.6	39.6	42.9	50.9	48.4	50.9	53.6
Above middle of class	21.3	23.0	20.0	20.7	21.6	25.1	20.6	19.1
Middle of class	29.1	28.2	31.6	27.6	22.6	22.6	22.7	22.5
Below middle of class	4.8	5.0	5.0	4.5	3.1	2.3	3.8	3.1
Near bottom of class	3.5	2.3	3.8	4.3	1.8	1.7	2.0	1.8

NOTE: Details may not add to 100.0 due to rounding.

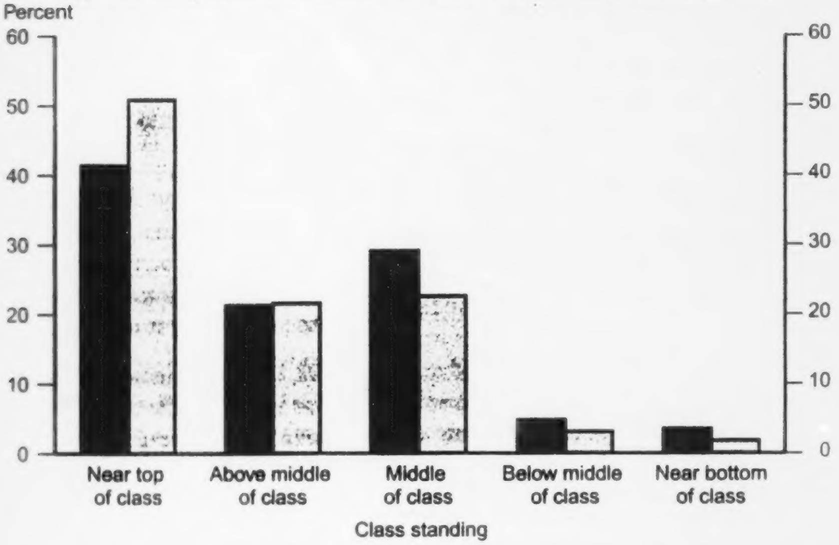
Percentage of elementary students who have had their parents contacted by the school or who have repeated a grade, by sex and grade level: 1995

	Male				Female			
Event	All	First grade	Second grade	Third grade	All	First grade	Second grade	Third grade
Parent contacted about behavior	23.6	22.9	23.9	24.0	12.4	16.0	12.5	8.7
Parent contacted about schoolwork	25.3	23.3	26.8	25.8	17.3	15.3	17.2	19.3
Child has repeated a grade	5.4	3.4	5.3	7.3	3.7	2.8	3.2	5.2

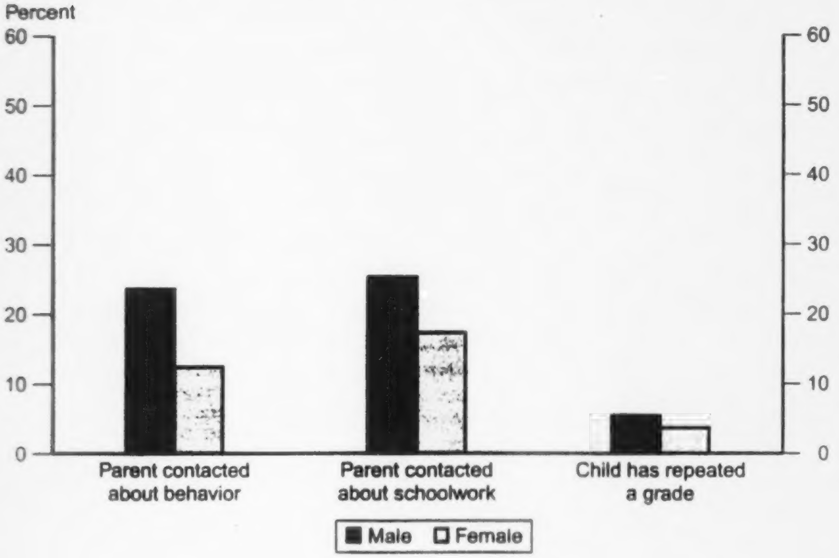
SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey, 1995.

Parent perceptions of students

Percentage distribution of students enrolled in grades 1–3 by sex and parents' estimates of their child's class standing: 1995



Percentage of elementary school students who have had their parents contacted by the school or who have repeated a grade, by sex: 1995



SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey, 1995.

High school graduates' coursetaking patterns

Females and males take similar mathematics and science courses in high school.

The percentage of male and female high school graduates who took various mathematics and science courses, with the exception of trigonometry, was higher in 1998 than in 1982. For example, the percentage of females who took algebra II increased from 39 to 64 percent whereas the percentage of males who took algebra II increased from 41 to 60 percent. The percentages of male and female graduates who took the most advanced mathematics and science courses was also higher in 1998 compared with 1982. For example, 6 and 4 percent of male and female graduates, respectively, took calculus in 1982, whereas 11 percent of both male and female graduates took calculus in 1998. The same pattern was evident in other advanced courses such as precalculus, physics, AP biology, and chemistry.

Male and female high school graduates take most mathematics and science courses at similar rates. In 1998, female graduates were more likely than males to take biology and chemistry, and were as likely as males to take other mathematics and science courses.

In 1998, female high school graduates who were enrolled in public schools earned slightly more total units than their male peers. Female graduates also earned more average units in arts and foreign languages, and earned slightly less units in vocational education (3.8 versus 4.3 units).

Percentage of high school graduates who took various mathematics and science courses, by sex: 1982, 1990, 1994, and 1998

Mathematics and science courses	1982			1990			1994			1998		
	Total*	Male	Female	Total*	Male	Female	Total*	Male	Female	Total*	Male	Female
Mathematics												
Geometry	47.2	47.2	47.0	63.2	62.1	64.2	70.0	67.9	72.2	75.1	73.7	77.3
Algebra II	40.0	40.8	39.0	52.9	51.0	54.6	61.1	57.7	64.3	61.7	59.8	63.7
Trigonometry	8.1	9.2	7.0	9.6	9.8	9.4	11.7	11.1	12.3	8.9	8.2	9.7
Precalculus	6.1	6.5	5.9	13.3	14.0	12.8	17.3	16.3	18.3	23.1	23.0	22.9
Calculus	5.0	5.7	4.4	6.5	7.5	5.6	9.3	9.5	9.1	11.0	11.2	10.6
Science												
Biology	77.5	75.8	78.8	90.9	89.4	92.3	93.2	91.8	94.5	92.7	91.4	94.1
AP/honors biology	10.0	9.4	10.6	10.1	9.4	10.8	11.9	10.9	12.8	16.2	14.5	18.0
Chemistry	32.1	33.5	30.9	48.9	47.7	50.0	55.8	52.9	58.5	60.4	57.1	63.5
Physics	15.2	20.2	10.5	21.5	25.4	18.0	24.5	27.0	22.2	28.8	31.7	26.2
Engineering	1.2	1.7	0.8	4.2	4.4	4.1	4.5	3.9	5.0	6.7	7.1	6.5

* Included in the totals but not shown separately are graduates whose sex was not reported.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "High School and Beyond," First Followup survey; "1990 High School Transcript Study," "1994 High School Transcript Study;" and "1998 High School Transcript Study."

Average number of Carnegie units earned by public high school graduates in various subjects, by sex: 1998

Sex	Total[1]	English	History/ social studies	Mathematics	Science	Foreign languages	Arts	Vocational education[2]
Total	**25.1**	**4.3**	**3.7**	**3.4**	**3.1**	**1.9**	**1.9**	**4.0**
Male	24.9	4.2	3.7	3.4	3.1	1.6	1.6	4.3
Female	25.4	4.3	3.8	3.4	3.2	2.1	2.2	3.8

[1] Included in the totals but not shown separately are graduates whose sex was not reported, and other courses not shown separately.

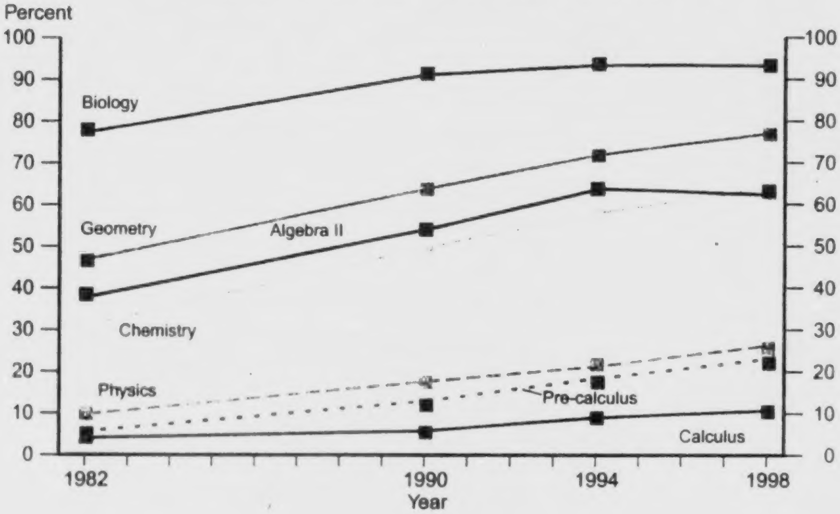
[2] Includes nonoccupational vocational education, vocational general introduction, agriculture, business, marketing, health, occupational home economics, trade and industry, and technical courses.

NOTE: One Carnegie unit represents one credit for the completion of a 1-year course.

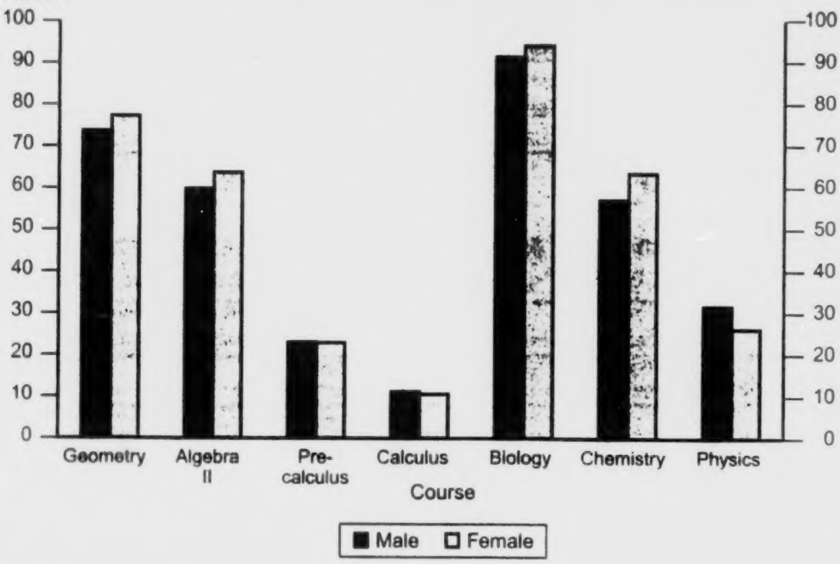
SOURCE: U.S. Department of Education, National Center for Education Statistics, "1998 High School Transcript Study."

High school graduates' coursetaking patterns

Percentage of female high school graduates who took selected mathematics and science courses: 1982, 1990, 1994, and 1998



Percentage of high school graduates who took selected mathematics and science courses in high school, by sex: 1998



SOURCE: U.S. Department of Education, National Center for Education Statistics, "High School and Beyond," First Followup survey; "1990 High School Transcript Study," "1994 High School Transcript Study;" and "1998 High School Transcript Study."

Advanced Placement (AP) examinations

Female high school students are more likely than males to take AP examinations.

By participating in the AP program, high school students may acquire college credit for their knowledge of college-level subjects. There has been a general expansion of the AP program since the mid-1980s as more students choose to go to college, more schools offer AP courses, and more students take advantage of these offerings.

Between 1984 and 1997, the number of examinees per 1,000 12th-graders rose from 50 to 131, indicating a general program expansion. In 1984, equal ratios of male and female students took AP examinations. However, the ratio of female students who took the examinations rose faster than did the ratio of male students who did so. In 1997, 145 female students compared with 117 male students per 1,000 12th-graders took AP examinations.

Students who score 3 or higher on an AP examination usually receive college credit. In 1997, female students were more likely than male students to receive a score of 3 or higher on AP examinations in English and foreign languages, whereas more male than female students received a score of 3 or higher on examinations in calculus, computer science, and science.

Number of students[1] who took AP examinations (per 1,000 12th-graders), by sex: 1984–97

Sex	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Total	**50**	**59**	**64**	**66**	**81**	**88**	**100**	**103**	**109**	**117**	**115**	**125**	**131**	**131**
Male	50	61	65	68	76	86	101	96	102	108	101	111	117	117
Female	50	58	63	65	85	90	98	111	117	127	129	140	144	145

Number of AP examinations[2] taken and the number of examinations with scores of 3 or higher (per 1,000 12th-graders), by subject area and sex: 1997

	Number of AP examinations taken						Number of examinations with scores of 3 or higher[3]					
Sex	Social studies	English	Foreign language	Calculus	Computer science	Science	Social studies	English	Foreign language	Calculus	Computer science	Science
Total	**59**	**55**	**17**	**33**	**3**	**35**	**35**	**38**	**12**	**20**	**1**	**23**
Male[4]	62	42	13	36	5	41	**35**	**38**	**12**	**20**	**1**	**23**
Female[4]	70	70	23	30	1	34	40	48	17	17	(5)	20

[1] "Number of students" includes 11th-graders and 12th-graders.

[2] "Number of AP examinations" includes all examinations taken by 11th- and 12th-graders. Because typical AP candidates take more than one examination, there is not a 1:1 ratio between candidates and examinations.

[3] Students scoring 3 or higher on an AP examination usually receive college credit.

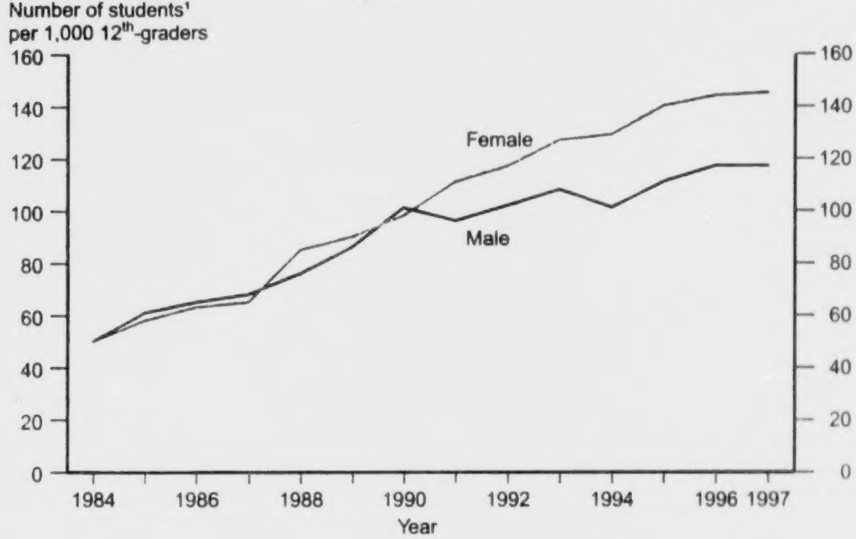
[4] The number of examinations taken by male and female students includes a small number of examinations taken by 9th-graders, 10th-graders, college students, and others (9 percent of all students who took AP examinations in 1997).

[5] Indicates a ratio of less than 0.5 per 1000.

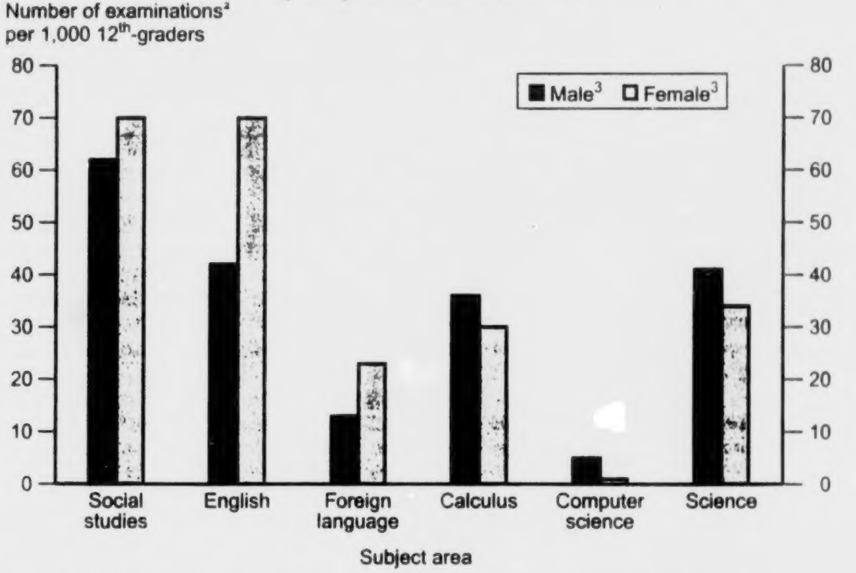
SOURCE: The College Board, Advanced Placement Program, *National Summary Reports*, various years (Copyright © 1984–97 by the College Entrance Examination Board. All rights reserved.). U.S. Department of Commerce, Bureau of the Census, Current Population Surveys, October 1984–97.

Students who took Advanced Placement (AP) examinations

Number of students[1] who took AP examinations (per 1,000 12th-graders), by sex: 1984–97



Number of AP examinations[2] taken (per 1,000 12th-graders), by subject area and sex: 1997



[1] "Number of students" includes 11th- and 12th-graders.

[2] "Number of AP examinations" includes all examinations taken by 11th- and 12th-graders. Because typical AP candidates take more than one examination, there is not a 1:1 ratio between candidates and examinations.

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SOURCE: The College Board, Advanced Placement Program, *National Summary Reports*, various years (Copyright ©1984–97 by the College Entrance Examination Board. All rights reserved.). U.S. Department of Commerce, Bureau of the Census, Current Population Surveys, October 1984–97.

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Civic involvement

Female high school students are more likely than male high school students to indicate that they could participate in civic events (e.g., make a statement at a public meeting), whereas male high school students are more likely than female high school students to pay attention to political issues in national news.

Both male and female high school students are often criticized about their lack of awareness of current events and their low civic involvement. Males and females differ in various ways with respect to civic involvement. In 1996, high school females were more likely than males to indicate that they could make a statement at a public meeting or write a letter to a government official.

However, high school males kept up with current events on a more regular basis than females. For example, 43 percent of males indicated they listen to national news almost daily, compared with 36 percent of females. In addition, 14 percent of males indicated that they read the national news almost daily, compared with 8 percent of females. The difference in reading about political issues in the national news almost daily may indicate that males may give a higher level of attention to national political events than females.

(Source: *The Civic Involvement of 9th Through 12th Grade Students in the United States: 1996.*)

Percentage of high school students stating opinions about social involvement and awareness of national news, by sex and grade: 1996

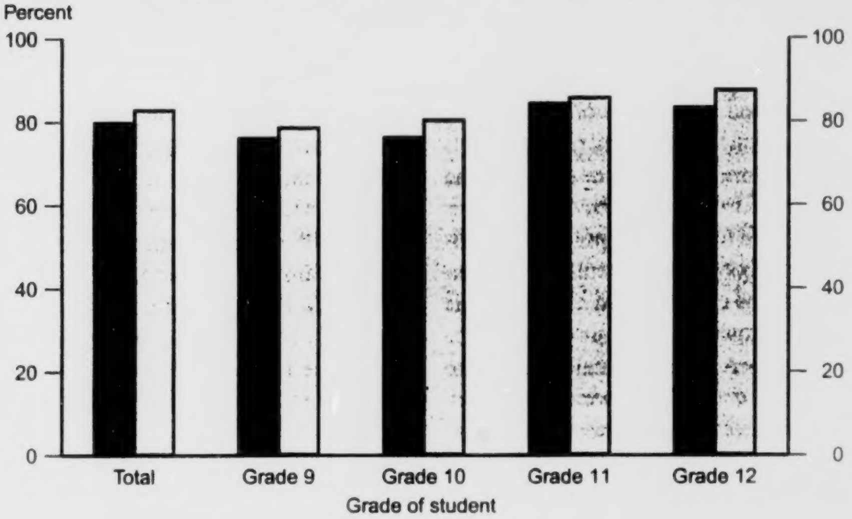
		Males					Females				
			Grade					Grade			
	Total	Total	9	10	11	12	Total	9	10	11	12
Could write a letter to a government official	93.3	92.1	89.0	90.7	94.9	94.2	94.7	93.3	94.8	95.6	95.4
Could make a statement at a public meeting*	81.1	79.6	75.9	76.0	84.1	83.1	82.7	78.4	80.2	85.5	87.3
Watch/listen to national news:											
Almost daily	39.7	43.0	45.2	42.4	41.8	42.2	36.3	37.6	36.9	33.4	37.1
At least once a week	31.8	31.0	26.9	30.7	33.7	33.3	32.6	33.4	27.9	35.9	33.2
At least once a month	11.7	11.0	14.7	9.6	9.8	9.9	12.5	11.0	13.6	13.3	12.3
Hardly ever	16.7	15.0	13.3	17.2	14.7	14.6	18.6	18.0	21.6	17.4	17.4
Read national news:											
Almost daily	11.0	13.7	10.2	11.7	16.1	17.5	8.0	6.7	5.1	8.4	12.2
At least once a week	30.1	31.8	27.3	32.2	34.8	33.1	28.3	28.1	28.1	27.6	29.6
At least once a month	18.7	18.4	19.8	16.6	17.7	19.7	18.9	18.6	19.2	21.9	16.1
Hardly ever	40.3	36.1	42.7	39.4	31.4	29.7	44.8	46.7	47.6	42.3	42.2

* Includes people who could make statements "depending on the meeting."

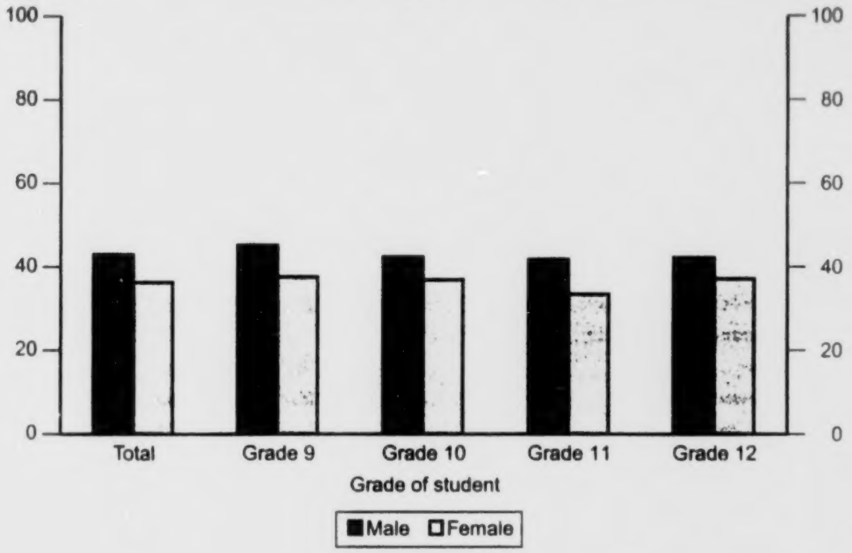
SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey, 1996.

Civic involvement

Percentage of students enrolled in grades 9–12 at public and private schools who indicated they could make a statement at a public meeting,* by sex: 1996



Percentage of students enrolled in grades 9–12 at public and private schools who indicated that they watch or listen to national political news almost daily, by sex: 1996



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* Includes people who could make statements "depending on the meeting."

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), 1996 (Youth Civic Involvement Component).

Political awareness

Female high school students are less likely than their male peers to be knowledgeable about the American political system.

In order to be well-informed citizens, students need to understand the basic workings of our system of government. In 1996, male students in grades 9–12 were generally more likely than their female peers to correctly answer questions on a questionnaire focusing on political knowledge. Of the 10 questions presented, male students' performance exceeded that of their female peers on 7 questions, and was similar on three questions. The percentage of male students in grades 9–12 who correctly answered any given question ranged from 23 to 62 percent. In contrast, the range for female students was 17 to 54 percent.

For both male and female students, those in their last years of high school (grades 11–12) performed better on the political knowledge questionnaire than students in grades 9–10. For example, 44 and 43 percent of male and female 9th- and 10th-graders, respectively, were able to correctly answer that the first 10 amendments to the U.S. Constitution are called the Bill of Rights. In contrast, 68 and 65 percent of male and female 11th- and 12th-graders, respectively, were able to correctly answer this question.

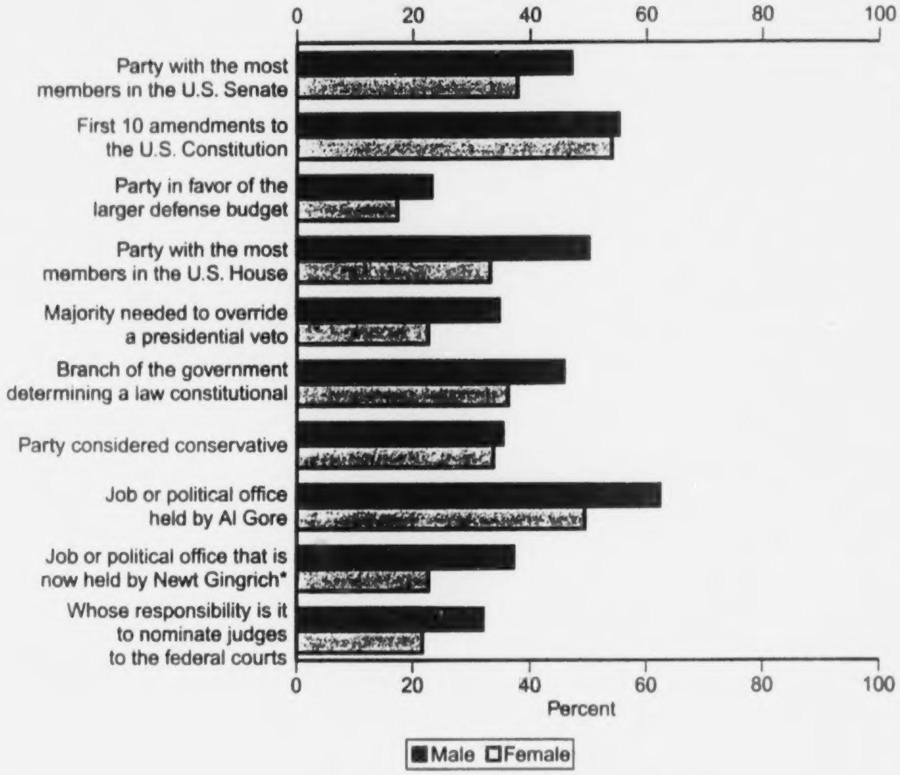
Percentage of students in grades 9–12 who gave correct answers to questions focusing on political knowledge, by sex and grade: 1996

		Male			Female		
			Grade			Grade	
Political knowledge questions	Total	Total	9–10	11–12	Total	9–10	11–12
Party with the most members in the U.S. Senate	42.6	47.1	40.0	54.5	37.8	32.3	43.3
First 10 amendments to the U.S. Constitution	54.6	55.2	43.6	67.5	54.0	42.8	65.3
Party in favor of the larger defense budget	20.4	23.2	18.0	28.8	17.3	12.7	21.9
Party with the most members in the U.S. House	41.9	50.1	42.1	59.3	33.2	26.0	41.7
Majority needed to override a presidential veto	28.8	34.7	27.5	42.9	22.6	15.2	31.3
Branch of the government determining a law constitutional	41.1	45.8	38.9	53.6	36.2	30.7	42.7
Party considered conservative	34.5	35.3	25.2	46.8	33.7	26.3	42.5
Job or political office held by Al Gore	56.1	62.4	56.4	69.3	49.4	45.4	54.2
Job or political office that is now held by Newt Gingrich*	30.2	37.2	28.8	46.2	22.7	17.7	27.7
Whose responsibility is it to nominate judges to the federal courts	27.0	32.0	23.7	40.7	21.7	14.6	28.8

* At the time the questionnaire was administered, Newt Gingrich was Speaker of the House of Representatives.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey, 1996 (Youth Civic Involvement Component).

Percentage of students in grades 9–12 who gave correct answers to questions focusing on political knowledge, by sex: 1996



* At the time the questionnaire was administered, Newt Gingrich was Speaker of the House of Representatives.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey, 1996 (Youth Civic Involvement Component).

Children with disabilities

Females in grades 1–12 were less likely than their male peers to be identified as having disabilities.

Children with disabilities face unique challenges in the educational process. For example, children with disabilities are more likely to be held back a grade than their peers who do not have disabilities and may require different educational resources than other children. (See *The Condition of Education, 1997.*)

Males in grades 1–12 were more likely to be indentified by their parents as having a disabling condition than were females in 1995 (10 versus 6 percent). Males in grades 1–12 were about twice as likely to have learning disabilities, speech impediments, and emotional disturbances, whereas the percentages of males and females in grades 1–12 with vision impairments, mental retardation, and orthopedic impairments were similar.

Males in grades 1–12 who have disabilities were also more likely to receive services for these disabilities from schools than their female peers. In 1995, 50 percent of males in grades 1–12 with disabilities received special services from schools, compared with 39 percent of their female peers. Males in these grades also were more likely than females to receive services from other sources in 1995 (10 versus 7 percent). Similar percentages of males and females in grades 1–12 with disabilities received no special services in 1995 (about 30 percent).

Percentage of students in grades 1–12 with disabilities, by sex and type of disability: October 1995

Type of disability	Total	Male	Female
Any disability*	**8.4**	**10.2**	**6.4**
Blindness	0.1	0.2	0.1
Other vision impairment	1.8	1.7	1.8
Deafness	0.1	0.2	0.1
Other hearing impairment	0.5	0.6	0.4
Emotional disturbance	0.6	0.9	0.4
Learning disability	3.3	4.5	2.1
Orthopedic impairment	0.5	0.4	0.5
Mental retardation	0.4	0.5	0.3
Speech impediment	1.1	1.5	0.7

* Included in the total but not shown separately are students with other disabling conditions. Students in grades 1–12 with a disabling condition may be included in more than one disability category.

Percentage of students in grades 1–12 with disabilities who received special services, by sex and service provider: October 1995

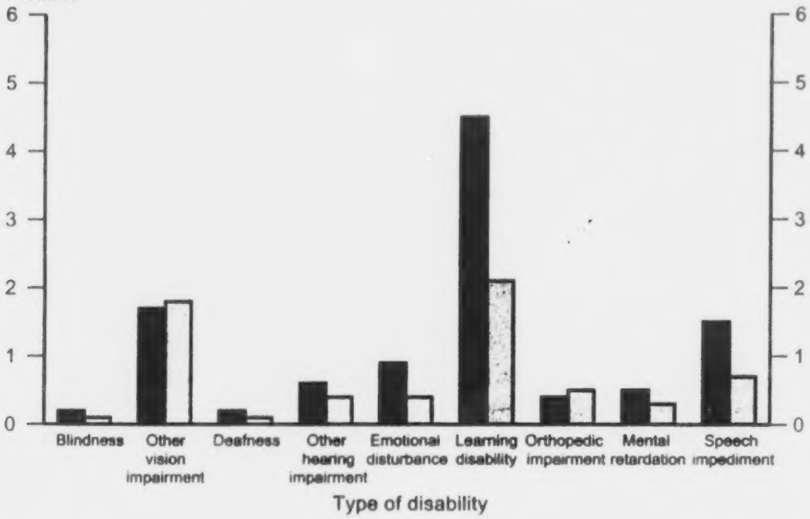
	Service provider			
Sex	School	Doctor	Other source	Not receiving special services
Total	**46.3**	**38.9**	**9.0**	**28.9**
Male	50.4	37.8	10.3	27.2
Female	39.4	40.8	6.7	31.7

NOTE: Percentages are based only on those students with disabilities. Students may receive special services from more than one provider.

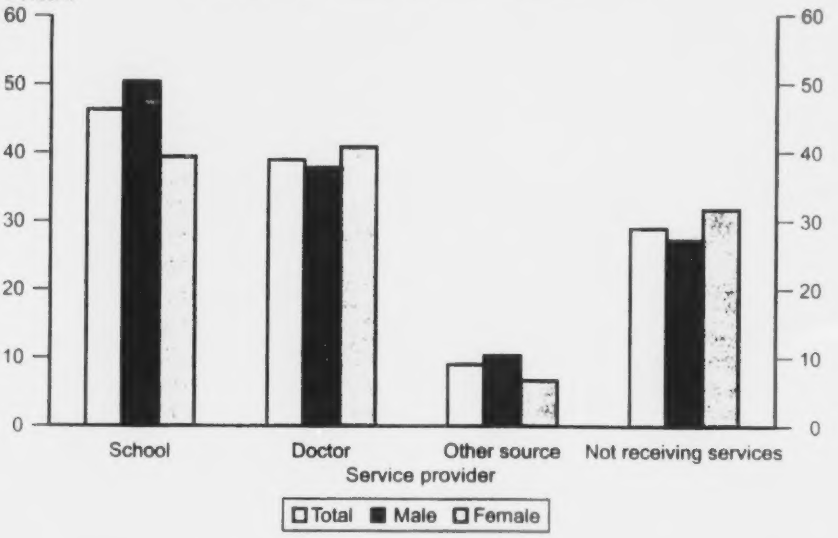
SOURCE: U.S. Department of Commerce, Bureau of the Census, Current Population Surveys, October 1995.

Children with disabilities

Percentage of students in grades 1–12 with various disabilities,[1] by sex and type of disability: October 1995



Percentage of students in grades 1–12 with disabilities[2] who receive special services for their disabilities, by sex and service provider: October 1995



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[1] Students in grades 1–12 with a disabling condition may be included in more than one disability category.

[2] Percentages are based only on those students who had disabilities. Students may receive special services from more than one provider.

SOURCE: U.S. Department of Commerce, Bureau of the Census, Current Population Surveys, October 1995.

High school dropouts

Males and females drop out of high school at similar rates.

Students who drop out of school have fewer opportunities to succeed in the work force than students who complete high school. The status dropout rate, which is the proportion of people ages 16–24 who are not enrolled in school and who are not high school completers, is one of several ways to define dropouts. Overall, fewer students are dropping out of high school now than in the past. The proportion of both males and females who dropped out of school decreased between 1972 and 1997.

Additionally, the proportions of white males and females, black males and females, and Hispanic females who dropped out of high school decreased between 1972 and 1997, while the dropout rate for Hispanic males did not change significantly during this time period.

During the early to mid-1970s and from the early 1990s to 1997, the status dropout rates of males and females ages 16–24 were similar. Although a student's sex makes little difference in terms of his or her risk of dropping out of high school, a student's race–ethnicity is associated with the risk of dropping out of school.

Within each racial–ethnic group, males and females had similar dropout rates between 1972 and 1997. However, white females ages 16–24 were generally less likely to drop out of high school than their black peers, and both white and black females ages 16–24 were generally less likely to drop out of school compared with their Hispanic peers.

Percentage of 16- to 24-year-olds who are status dropouts,[1] by sex and race–ethnicity: 1972–97

Year	Male				Female			
	Total[2]	White	Black	Hispanic	Total[2]	White	Black	Hispanic
1972	14.1	11.6	22.3	33.7	15.3	12.8	20.5	34.8
1974	14.2	12.0	20.1	33.8	14.6	11.8	22.1	32.2
1976	14.1	12.1	21.2	30.3	14.4	11.8	19.9	32.3
1978	14.6	12.2	22.5	33.6	14.1	11.6	18.3	33.1
1980	15.1	12.3	20.8	37.2	13.4	10.5	17.7	33.2
1982	14.5	12.0	21.2	30.5	13.6	10.8	15.9	32.8
1984	14.0	11.9	16.8	30.6	12.6	10.1	14.3	29.0
1986	13.1	10.3	15.0	32.8	11.7	9.1	13.5	27.2
1988	13.5	10.3	15.0	36.0	12.7	8.9	14.0	35.4
1990	12.3	9.3	11.9	34.3	12.3	8.7	14.4	30.3
1991	13.0	8.7	13.5	39.2	12.4	8.9	13.7	31.1
1992[3]	11.3	8.0	12.5	32.1	11.2	7.4	14.8	26.6
1993[3]	11.2	8.2	12.6	28.1	11.3	7.6	14.4	26.9
1994[3]	12.3	8.2	14.1	31.6	11.1	7.5	11.3	28.1
1995[3]	12.2	9.0	11.1	30.0	12.2	8.2	12.9	30.0
1996[3]	11.4	7.2	13.5	30.3	11.4	7.3	12.5	28.3
1997[3]	11.9	8.6	13.3	27.0	10.7	6.7	13.5	23.4

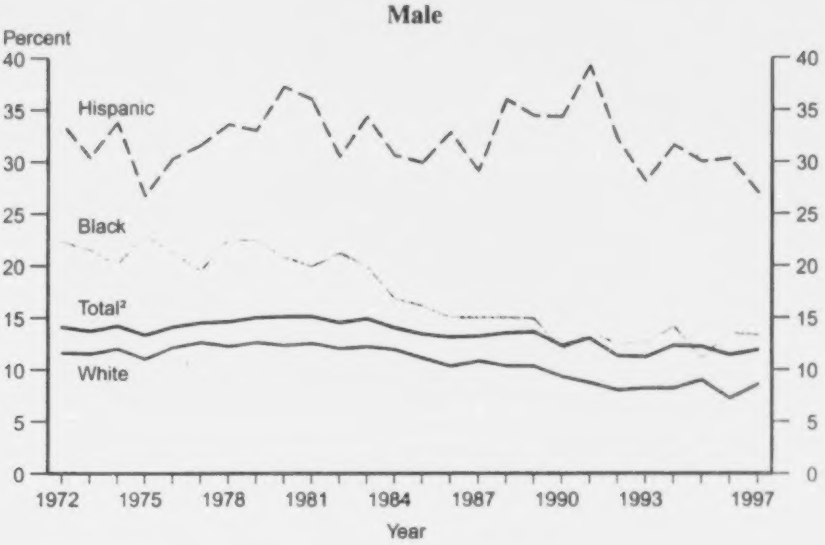
[1] Status dropouts are persons who are not enrolled in school and who are not high school completers. People who have received GED credentials are counted as completers.

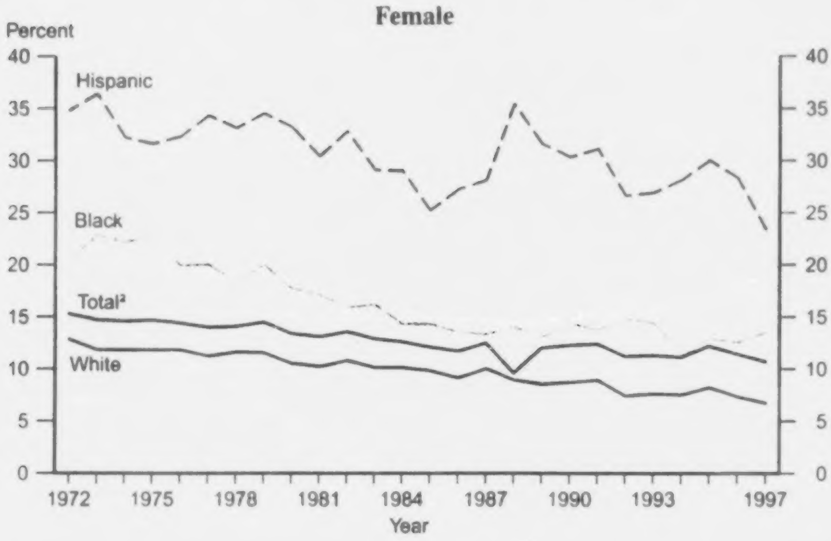
[2] Included in the total but not shown separately are dropouts from other racial–ethnic groups.

[3] Because of changes in data collection procedures, data may not be comparable to earlier years.

SOURCE: U.S. Department of Commerce, Bureau of the Census, Current Population Surveys, October, various years.

Percentage of 16- to 24-year-olds who are status dropouts,[1] by sex and race–ethnicity: 1970–97





[1] Status dropouts are people who are not enrolled in school and who are not high school completers. People who have received GED credentials are counted as completers.

[2] Included in the totals but not shown separately are dropouts from other racial–ethnic groups.

NOTE: Because of changes in data collection procedures, data for 1992–97 may not be comparable to earlier years.

SOURCE: U.S. Department of Commerce, Bureau of the Census, Current Population Surveys, October, various years.

High school completion by child-bearing teens

Females who have a child before the time when they should graduate increase their odds of not completing high school.

Young females who give birth are much less likely to complete high school. Sixty-four percent of 1988 female 8th-graders who gave birth by 1994 completed high school, 30 percentage points less than for 8th-graders who had no children by 1994. The difference was even greater for those who had children by 1992, when most would have been high school seniors. For those who had children before June 1992, 54 percent completed high school, 40 percentage points below the high school completion rate of 1988 female 8th-graders who had not had children by 1994.

High school completion rates of those who gave birth by 1994 varied somewhat by socioeconomic status and by race–ethnicity. Overall, females of low socioeconomic status were less likely to complete high school than those of middle and high socioeconomic status. However, although having children by 1994 was associated with a decreased probability of completing high school overall, this was not true for females of high socioeconomic status. Females of high socioeconomic status who had children by 1994 were as likely to complete high school as those high socioeconomic status females who did not have children. Females from low and middle socioeconomic groups who had children by 1994, however, were less likely to complete high school than their peers who did not have children.

Overall, black and Hispanic females were twice as likely to give birth by 1994 as white females (39 and 34 percent, respectively, versus 17 percent), and Asian females (9 percent) were less likely to give birth than whites, blacks, and Hispanics. Black and Hispanic females were also more likely than whites to have their first child by June 1992. Of these 8th-graders who had their first child by 1992, Hispanics were less likely to complete high school (37 percent) compared with whites and blacks (57 and 63 percent, respectively).

High school completion rates as of 1994 for 1988 8th-grade females, by childbearing and socioeconomic status and race–ethnicity

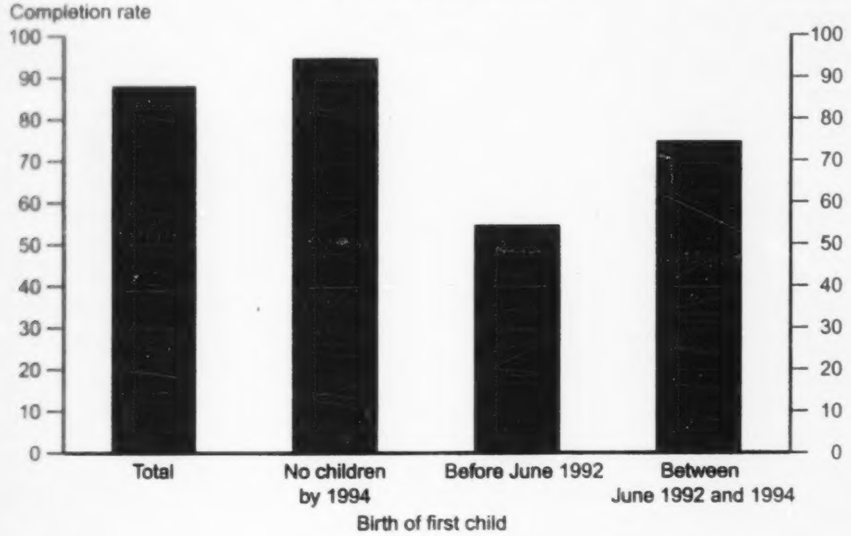
Socioeconomic status and race–ethnicity	Total	No children by 1994	Timing of first birth: By 1994	By June 1992	Between June 1992 and 1994
Total	**87.6**	**94.2**	**63.9**	**54.2**	**74.2**
Socioeconomic status					
Low	75.8	87.0	56.6	44.0	69.6
Middle	91.3	95.8	73.1	66.4	79.2
High	97.8	98.2	92.0	—	89.4
Race–ethnicity					
White, non-Hispanic	90.0	94.0	65.8	56.7	73.6
Black, non-Hispanic	83.8	93.0	70.1	63.0	81.8
Hispanic	77.6	89.6	53.9	37.2	71.5
Asian/Pacific Islander	93.3	96.2	64.2	—	—

— Sample size too small for a reliable estimate.

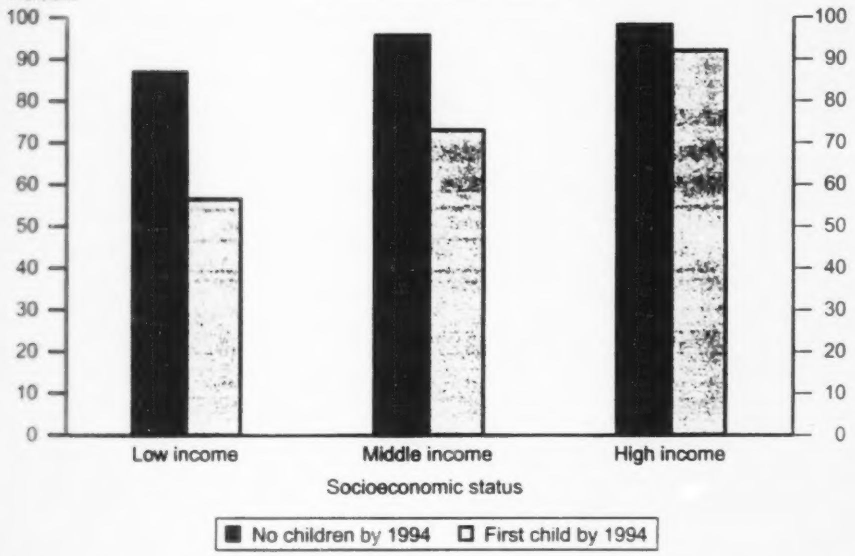
SOURCE: U.S. Department of Education, National Center for Education Statistics, *The Relationship Between the Parental and Marital Experiences of 1988 Eighth-Grade Females and High School Completion as of 1994*, 1998.

High school completion rates as of 1994 for females who were in the 8th grade in 1988, by childbearing status

By timing of first birth



By socioeconomic status



SOURCE: U.S. Department of Education, National Center for Education Statistics, *The Relationship Between the Parental and Marital Experiences of 1988 Eighth-Grade Females and High School Completion as of 1994*, 1998.

Student safety and victimization

Female students ages 12–19 were less likely than their male counterparts of the same age to experience violent victimization in both 1989 and 1995, but the percentage of female students who reported violent victimization increased between 1989 and 1995.

There are many ways in which students can be exposed to crime at school. For example, they may witness or experience thefts, physical harm, drug use, or gang violence. In 1989 and 1995, females ages 12–19 were less likely than their male counterparts to report violent victimization even though there was an increase in the percentage of females who reported violent victimization in 1995.

Between 1989 and 1995, there was an increase in the percentage of all students ages 12–19 who reported fearing physical harm. More students reported fear of attack or harm at school or on the way to or from school, and avoiding one or more places in school. In 1989 and 1995, there was no difference between the percentage of males and females who reported a fear of attack or harm in school or avoidance of one or more places in school. However, more females than males reported a fear of attack or harm on the way to or from school in both 1989 and in 1995.

Street gangs are associated with many crimes, such as dealing drugs and violent attacks. In 1995, 29 percent of male and 28 percent of female students reported the presence of gangs in school, up from 16 percent of male and 15 percent of female students in 1989.

Although there was no difference in the percentages of students who reported the availability of drugs at school between 1989 and 1995, more male than female students reported the availability of drugs at school in both these years.

Percentage of students ages 12–19 who reported criminal victimizations at school, feared attack or harm, avoided places in school, and who reported the availability of drugs and street gangs at school: 1989 and 1995

	Total		Male		Female	
Criminal victimization	1989	1995	1989	1995	1989	1995
Any victimization[1]	14.5	14.6	15.2	15.8	13.7	13.3
Violent victimization[2]	3.4	4.2	4.8	5.1	2.0	3.3
Property victimization[3]	12.2	11.6	12.1	12.0	12.3	11.2
Feared attack or harm						
at school	5.5	8.6	5.7	8.3	5.4	9.0
on the way to or from school	4.4	6.7	3.8	5.4	5.1	8.0
Avoided one or more places in school	5.1	8.7	5.1	8.7	5.1	8.6
Availability of drugs in school[4]	63.2	65.3	64.6	66.7	61.7	63.8
Presence of street gangs in school	15.3	28.4	15.8	28.9	14.8	27.9

[1] Any victimization is a combination of reported violent and property victimization. If the student reported an incident of either type, he or she was counted as having experienced any victimization. If the student reported having experienced both types of victimization, he or she was counted in both victimization categories but only once under "any victimization."

[2] Violent victimization includes physical attacks or taking property from the student directly by force, weapons, or threats.

[3] Property victimization includes theft of property from a student's desk, locker, or other location.

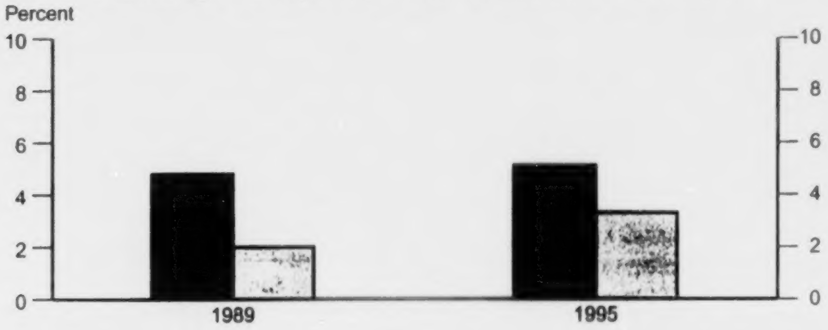
[4] In the 1989 School Crime Supplement, students were asked about the availability of marijuana, cocaine, crack, uppers and downers, and other illegal drugs. In the 1995 School Crime Supplement, students were asked about the availability of these drugs and were also asked about the availability of PCP, LSD, and heroin. When comparing data across the 2 years, only those drugs that were listed on both surveys were counted.

NOTE: Crime reported here refers to crimes that occurred in the school building, on school grounds, or on a school bus during the 6 months prior to the interview.

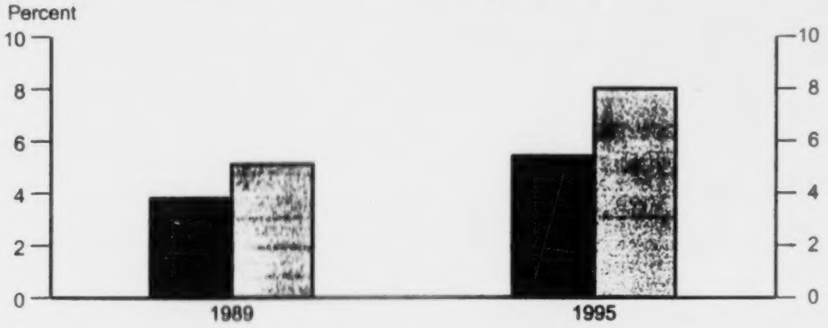
SOURCE: U.S. Department of Education, National Center for Education Statistics, and U.S. Department of Justice, Office of Justice Programs, and *Indicators of School Crime and Safety, 1998; Students' Reports of Crime: 1989 and 1995*, 1998.

Percentage of students ages 12–19 who reported criminal victimizations at school, feared attack or harm, and avoided places in school, by sex: 1989 and 1995

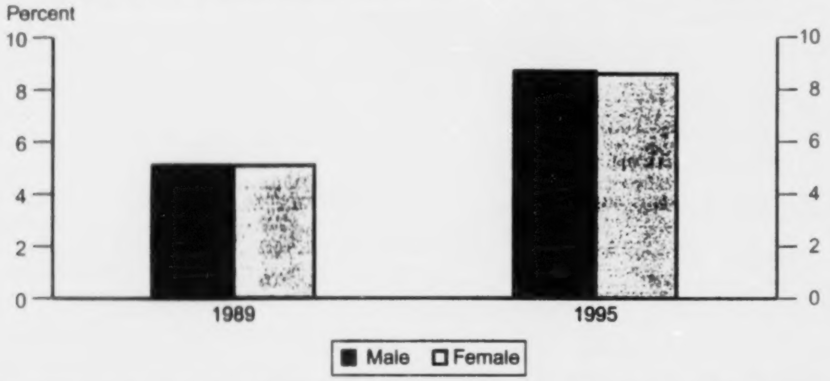
Percentage who reported violent victimization* at school



Percentage who reported fear of attack on the way to or from school



Percentage who reported avoidance of one or more places in school



* Violent victimization includes physical attacks or taking property from the student directly by force, weapons, or threats.

NOTE: Crime reported here refers to crimes that occurred in the school building, on school grounds, or on a school bus during the 6 months prior to the interview.

SOURCE: U.S. Department of Education, National Center for Education Statistics, and U.S. Department of Justice, Office of Justice Programs, and *Indicators of School Crime and Safety*, 1998; *Students' Reports of Crime: 1989 and 1995*, 1996.

Repeating grades

Females ages 5–12 are less likely than males of the same age to repeat a grade.

Studies have shown that students who repeat at least one grade are more likely to drop out of school and therefore may have fewer opportunities to succeed in the work force. (See *The Condition of Education, 1997*, Indicator 54.) In both 1992 and 1995, females ages 5–12 were less likely than males of the same age to repeat a grade. In 1995, 8 percent of males and 5 percent of females ages 5–12 repeated a grade since starting school, a slight decrease from 1992 for males. Males and females in this age group were more likely to repeat kindergarten or first grade than they were to repeat a grade between second and sixth grade.

In general, parents' highest educational attainment level was related to whether their child repeated a grade in school. As parents' educational attainment increased, the percentage of males and females who repeated a grade decreased. Family income was also related to students repeating grades. Students from low income families were more likely than students from high income families to repeat a grade.

Percentage of students ages 5–12 who have repeated at least one grade since starting school, by sex, grade repeated, and selected student characteristics: 1992 and 1995

	Male			Female		
	Grade repeated			Grade repeated		
Selected student characteristics	Total	Kindergarten/ first grade	Grades 2–6	Total	Kindergarten/ first grade	Grades 2–6
			1992			
Total	9.4	5.6	2.9	5.6	3.2	1.8
			1995			
Total	7.7	5.1	2.0	5.3	3.3	1.6
Family income*						
Low	13.2	7.9	4.1	10.0	6.4	3.2
Middle	7.8	5.3	2.1	5.0	3.2	1.4
High	3.4	2.4	0.5	2.2	1.2	0.6
Parents' highest education level						
Less than high school	13.6	7.9	4.0	9.6	5.9	3.6
High school	9.5	6.2	2.9	6.6	4.7	1.7
Some college	7.2	5.4	1.3	4.2	2.3	1.4
Bachelor's degree or higher	3.6	2.3	0.8	2.8	1.7	0.7

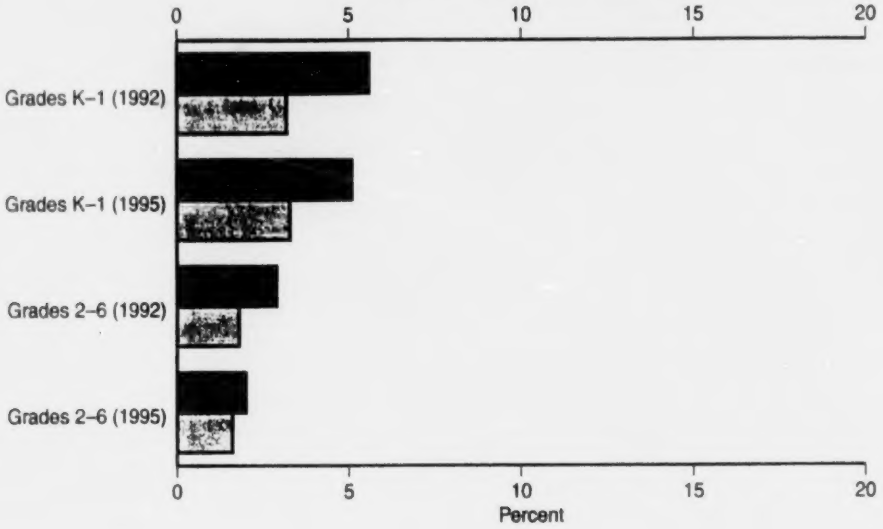
* Low income is the bottom 20 percent of all family incomes; high income is the top 20 percent of all family incomes; and middle income is the 60 percent in between.

NOTE: Included in the totals but not shown in the grade ranges are those respondents who reported repeating a grade but who did not indicate which grades (e.g., kindergarten, first grade, etc.) were repeated. A small percentage of children repeated more than one grade; these students may appear in both grade ranges but are only counted once in the total. Included in the total but not shown separately were students whose parents' education was unknown.

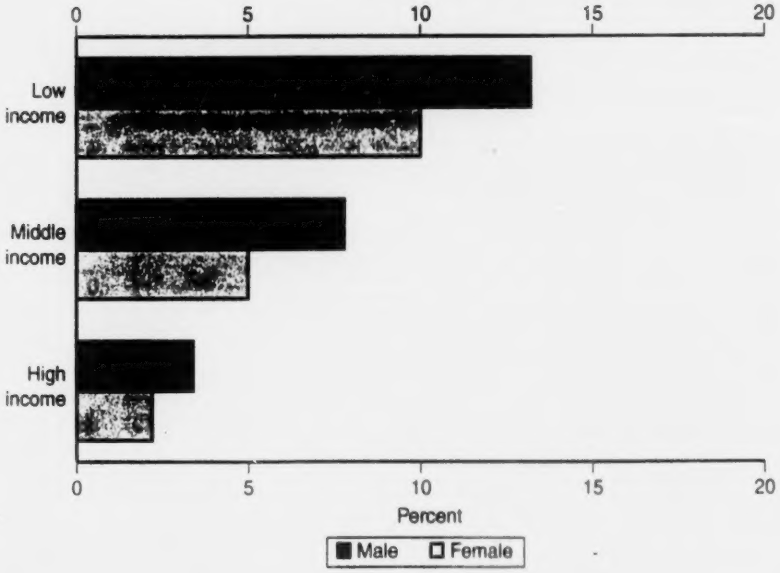
SOURCE: U.S. Department of Commerce, Bureau of the Census, Current Population Surveys, October 1992 and 1995.

Percentage of children ages 5–12 who repeated at least one grade since starting school, by grade repeated, family income, and sex: 1995

By grade repeated: 1992 and 1995



By family income*



* Low income is the bottom 20 percent of all family incomes; high income is the top 20 percent of all family incomes; and middle income is the 60 percent in between.

SOURCE: U.S. Department of Commerce, Bureau of the Census, Current Population Surveys, October 1992 and 1995.

College plans

Female high school seniors were more likely to plan to graduate from college than males.

High school seniors' college plans provide one measure of the value students place on higher education as compared with other pursuits. Female high school seniors are more likely than male seniors to say they plan to definitely attend college as well as to actually enroll in college immediately following high school. In both 1990 and 1995, female high school seniors were more likely than their male peers to report that they would definitely graduate from a 4-year college program.

In 1980, a higher proportion of male high school seniors than female seniors (12 versus 10 percent) reported that they definitely would attend graduate or professional school after college. However, by 1995, more female seniors than male seniors (22 versus 16 percent) reported that they definitely would do so. In 1995, female seniors were also more likely than their male peers to report that they probably would attend graduate or professional schools (35 and 31 percent for female and male students, respectively).

Between 1980 and 1995, there was no change in the percentages of male seniors who definitely planned to attend a technical or vocational school, although there was a slight decrease in the percentage of female students who planned to do so. During the same period, there was an increase in the percentages of seniors who reported that they definitely would graduate from a 2-year college, rising from 10 percent for male and 14 percent for female seniors in 1980, to 15 percent for male and 18 percent for female seniors in 1995. Female seniors were less likely than male seniors to report that they would definitely attend a technical or vocational school but were more likely to report that they would definitely graduate from a 2-year or 4-year college, or attend a graduate or professional school program in 1995.

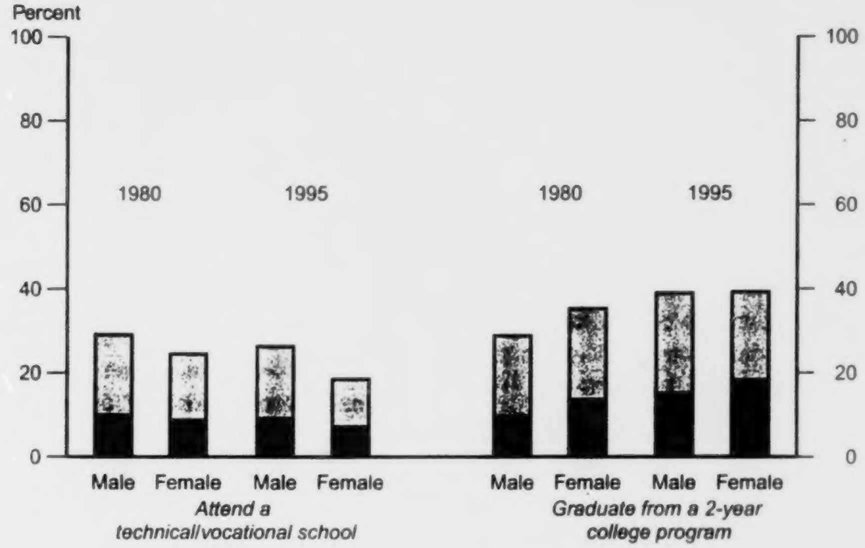
Percentage distribution of high school seniors according to reports of various educational plans after high school, by sex: 1980, 1990, and 1995

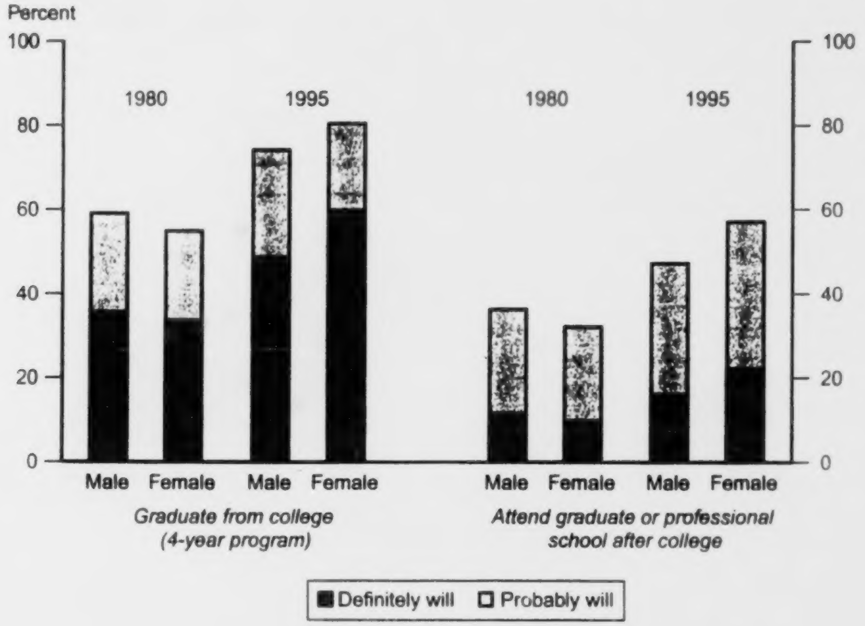
	1980			1990			1995		
College plans for seniors	Total	Male	Female	Total	Male	Female	Total	Male	Female
Attend a techincal/vocational school									
Definitely will	9.4	9.9	8.7	8.7	9.0	8.3	8.1	9.0	7.1
Probably will	17.5	19.2	15.8	15.2	16.4	13.8	14.2	17.2	11.4
Definitely/probably won't	73.1	70.9	75.5	76.1	74.5	78.0	77.7	73.8	81.4
Graduate from a 2-year college program									
Definitely will	11.8	9.6	13.6	16.3	13.9	18.6	16.7	15.1	18.2
Probably will	20.5	19.2	21.6	22.4	22.0	22.8	22.5	23.8	21.0
Definitely/probably won't	67.7	71.2	64.7	61.3	64.1	58.6	60.9	61.1	60.8
Graduate from college (4-year program)									
Definitely will	34.5	35.6	33.6	48.1	45.8	50.8	54.2	48.6	59.8
Probably will	22.4	23.5	21.3	22.2	24.0	20.5	23.1	25.6	20.7
Definitely/probably won't	43.2	41.0	45.0	29.7	30.2	28.8	22.8	25.8	19.5
Attend graduate or professional school after college									
Definitely will	10.6	11.5	9.8	15.2	14.2	16.4	19.3	16.1	22.1
Probably will	23.5	24.8	22.3	30.4	29.7	31.3	33.0	31.1	35.0
Definitely/probably won't	65.9	63.8	67.9	54.4	56.2	52.2	47.7	52.8	42.9

NOTE: The response rate for this survey was less than 70 percent and a full nonresponse bias analysis has not been done to date. Details may not add to 100.0 due to rounding.

SOURCE: University of Michigan, Institute for Social Research. *Monitoring the Future*, various years.

Percentage of high school seniors who reported various educational plans after high school, by sex: 1980 and 1995





NOTE: The response rate for this survey was less than 70 percent and a full nonresponse bias analysis has not been done to date.

SOURCE: University of Michigan, Institute for Social Research, *Monitoring the Future*, 1980 and 1995.

Immediate transition from high school to college

Females were more likely than males to enroll in college immediately following high school in 1997.

The proportion of high school completers who enroll in college directly after high school is a good indication of the proportion who will ever enroll (*The Condition of Education, 1998*). In 1972, more male than female high school completers went directly to college; but, by 1997, the opposite was true. For example, in 1972, 53 percent of male completers and 46 percent of female completers went directly to college after high school, whereas in 1997, 64 percent of males and 70 percent of females enrolled in college immediately after completing high school.

The proportion of males and females who enrolled in college immediately after high school increased between 1972 and 1997, but the proportion of females increased at a faster rate. The proportion of males who went directly to college increased from 53 to 64 percent, an 11 percentage point increase. In contrast, the proportion of females who went directly to college increased from 46 to 70 percent, a 24 percentage point increase.

In 1973, males were more likely than females to enroll in 4-year colleges after completing high school. However, by 1997, there was no difference in the percentages of males and females who enrolled in 4-year colleges immediately after high school.

Percentage of high school completers who were enrolled in college the October following high school completion, by sex and type of institution attended: October 1972–97

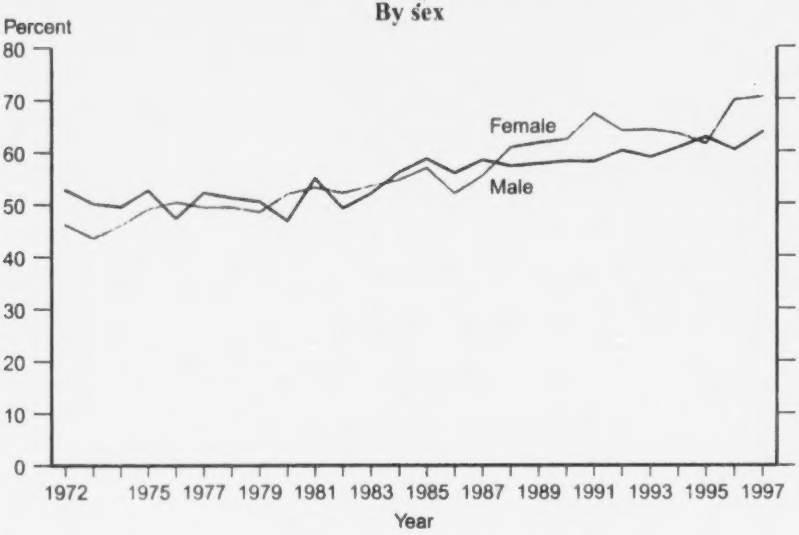
	Male			Female		
October	Total	2-year	4-year	Total	2-year	4-year
1972	52.7	—	—	46.0	—	—
1973	50.0	14.6	35.4	43.4	15.2	28.2
1975	52.6	19.0	33.6	49.0	17.4	31.6
1977	52.1	17.2	35.0	49.3	17.8	31.5
1979	50.4	16.9	33.5	48.4	18.1	30.3
1981	54.8	20.9	33.9	53.1	20.1	33.0
1983	51.9	20.2	31.7	53.4	18.4	35.1
1985	58.6	19.9	38.8	56.8	19.3	37.5
1987	58.3	17.3	41.0	55.3	20.3	35.0
1989	57.6	18.3	39.3	61.6	23.1	38.5
1990	58.0	19.6	38.4	62.2	20.6	41.6
1991	57.9	22.9	35.0	67.1	26.8	40.3
1992	60.0	22.1	37.8	63.8	23.9	40.0
1993	58.7	22.4	36.3	64.0	22.4	41.6
1994	60.6	23.0	37.5	63.2	19.1	44.1
1995	62.6	25.3	37.4	61.3	18.1	43.2
1996	60.1	21.5	38.5	69.7	24.6	45.1
1997	63.6	21.4	42.2	70.3	24.1	46.2

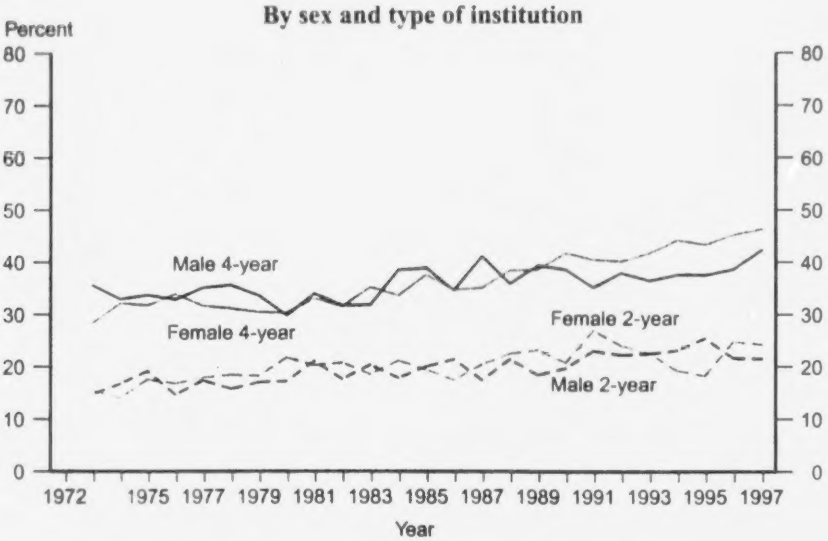
— Not available. Data for type of institution were not collected until 1973.

NOTE: Details may not add to totals due to rounding.

SOURCE: U.S. Department of Commerce, Bureau of the Census, Current Population Surveys, October, various years.

Percentage of high school completers who were enrolled in college the October following high school completion: October 1972–97





NOTE: Data for type of institution were not collected until 1973.

SOURCE: U.S. Department of Commerce, Bureau of the Census, Current Population Surveys, October, various years.

Community service participation

Females in grades 6–12 are more likely to participate in community service than males in these grades.

In 1996, females in grades 6–12 were more likely to report participating in community service than their male peers. Of those who participated in community service activities, females were more likely to participate on a regular basis than males (29 compared with 22 percent, respectively).

In general, the finding that females are more likely to perform community service than males holds true when females and males are compared by different student characteristics, such as grade level, household income, parent's highest education level, and whether or not the student lives with an adult who performs community service. For example, 61 percent of females in grades 11–12 participated in community service, compared with 51 percent of males in the same grades.

Percentage of students in grades 6–12 who participated or planned to participate in community service, by sex and selected student characteristics: 1996

	Participated in community service[1]						Will participate before the end of the school year[2]		Plan to do community service next year	
	Any participation		Regular participation		One or two times					
Student characteristics	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Total	**45.3**	**53.1**	**22.3**	**29.1**	**22.9**	**24.0**	**31.7**	**30.5**	**75.6**	**85.6**
Grade level										
6–8	44.7	50.1	21.2	24.9	23.5	25.2	34.0	34.2	81.3	87.7
9–10	40.7	50.3	19.3	28.2	21.4	22.2	35.6	33.3	77.4	88.7
11–12	51.3	61.3	27.6	37.5	23.7	23.8	23.5	20.9	64.1	78.6
Household income										
Less than $10,000	35.2	38.7	16.4	21.1	18.8	17.6	40.8	40.8	69.3	83.1
10,001–20,000	41.6	45.5	19.4	23.3	22.2	22.3	34.3	37.5	74.3	86.6
20,001–30,000	41.2	50.0	20.6	28.3	20.6	21.6	33.4	31.0	72.1	81.9
30,001–40,000	42.9	50.5	21.0	27.8	21.9	22.6	32.8	33.5	73.9	84.2
40,001–50,000	46.2	60.0	23.2	29.6	23.1	30.4	30.9	23.9	75.9	87.6
50,001 or more	53.0	62.7	26.8	35.7	26.3	27.0	26.4	23.9	80.9	88.0
Parents' highest education level										
Less than high school diploma	34.1	33.5	15.9	14.9	18.3	18.6	38.4	48.1	72.9	84.1
High school diploma or GED	38.9	45.4	19.6	25.1	19.3	20.4	36.2	34.8	72.2	81.0
Some college/vocational/technical	44.3	52.9	22.0	29.1	22.3	23.8	30.6	30.4	73.3	85.8
Bachelor's degree	50.7	65.7	22.3	36.6	28.4	29.1	30.0	21.1	78.4	88.9
Graduate/professional school	59.6	69.4	31.4	39.5	28.2	30.0	23.5	19.6	85.0	91.8
Any adult in the household who performs community service										
Yes	53.9	61.0	28.7	34.7	25.2	26.3	29.6	27.3	82.6	90.1
No	36.1	43.3	15.5	22.2	20.5	21.1	34.0	34.5	68.2	79.9

[1] Data were collected from January 1996 through April 1996. Any student who reported participating in at least one activity more than twice during the school year was classified as a regular participant. Students may have participated in multiple activities without being classified as regular participants if no individual activity was performed more than twice. The percentages were calculated based on all students in grades 6–12, not just those who participated or planned to participate in community service. Ungraded and home schooled students were excluded.

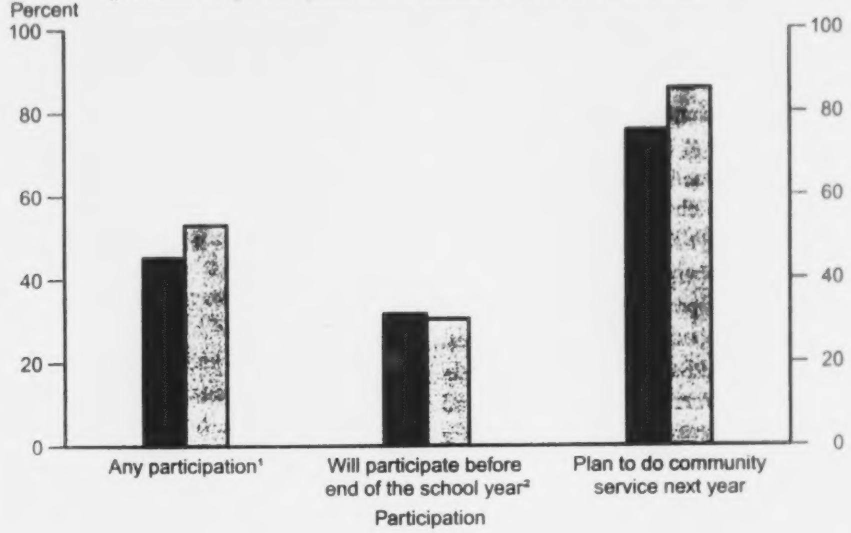
[2] Only students who had performed no community service were asked if they had plans to participate.

NOTE: Details may not add to totals due to rounding.

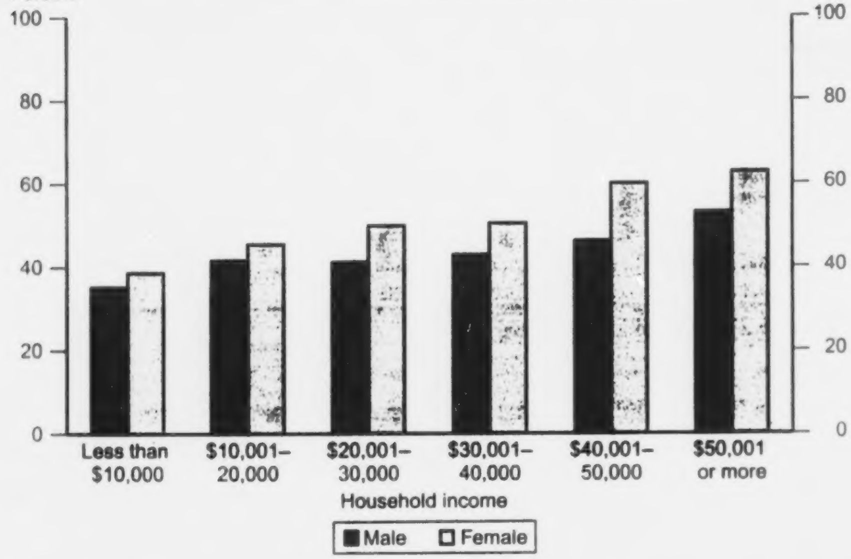
SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), 1996 (Youth Civic Involvement Component).

Community service participation

Percentage of students in grades 6–12 who participated or planned to participate in community service, by sex: 1996



Percentage of students in grades 6–12 who participated[1] in community service, by household income and sex



[1] Data were collected from January 1996 through April 1996. The percentages were calculated based on all students in grades 6–12, not just those who participated or planned to participate in community service. Ungraded and home schooled students were excluded.

[2] Only students who had performed no community service by the time of the interview were asked if they had plans to participate.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), 1996 (Youth Civic Involvement Component).

Use of computers by secondary students

The percentages of male and female 8th- and 11th-graders who reported using a computer every day at school are similar.

Computers have become an integral part of our society, even for students. Students use computers at school and at home to accomplish a variety of school-related tasks, to locate information, and to play both educational and recreational games. In 1984 and 1996, there was no difference in the percentages of male and female students who reported using a computer every day at school in both the 8th and 11th grades. However, between 1984 and 1996, there was an increase in the percentage of both male and female 8th-grade students who reported using a computer every day at school. There was also an increase in the percentage of male 11th-graders who reported using a computer every day at school, whereas the percentage of female 11th-graders remained the same.

In 1984 and 1996, there was no difference in the percentages of 8th- and 11th-grade male and female students who reported using a computer to learn things and to write stories or papers. In 1984, male 8th- and 11th-graders were more likely than their female peers to report using a computer at home, but by 1996, there was no difference between the two groups.

Percentage distribution of 8th- and 11th-graders who reported using a computer at school, by frequency of use and sex: 1984 and 1996

	Frequency of use									
Grade and year	Never		Less than once a week		Once a week		2 or 3 times a week		Every day	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
8th- grade										
1984	63.8	70.1	19.8	13.6	6.2	10.4	5.5	3.5	4.7	2.4
1996	18.7	27.9	27.4	31.0	16.4	12.8	18.6	13.9	19.0	14.4
11th- grade										
1984	56.2	53.9	17.3	24.3	6.5	4.9	7.4	5.2	12.5	11.7
1996	14.2	17.8	30.5	37.9	17.0	13.5	17.5	15.4	20.8	15.4

NOTE: Details may not add to 100.0 due to rounding.

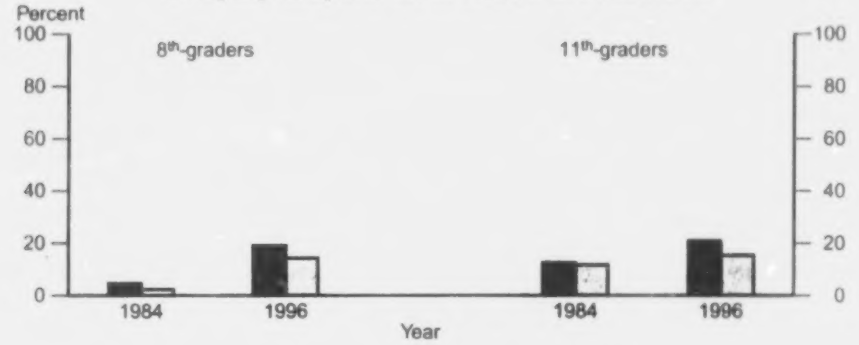
Percentage of 8th- and 11th-graders who reported ever using a computer outside of school by where they use a computer, purpose of use, and sex: 1984 and 1996

	Where they use a computer						Purpose of use					
Grade and year	Home		Library		Friend's house		Play games		Learn things		Write stories or papers	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
8th- grade												
1984	45.2	26.0	20.0	21.0	52.1	31.6	88.8	78.2	63.0	52.2	16.4	13.3
1996	61.8	60.6	68.4	65.1	51.9	53.8	88.6	89.5	80.3	84.9	90.3	92.0
11th- grade												
1984	36.2	24.7	16.1	27.7	36.3	27.6	79.1	72.5	54.8	54.4	19.3	18.4
1996	65.0	61.6	73.4	72.4	60.5	47.7	87.4	79.7	79.1	81.4	94.6	96.7

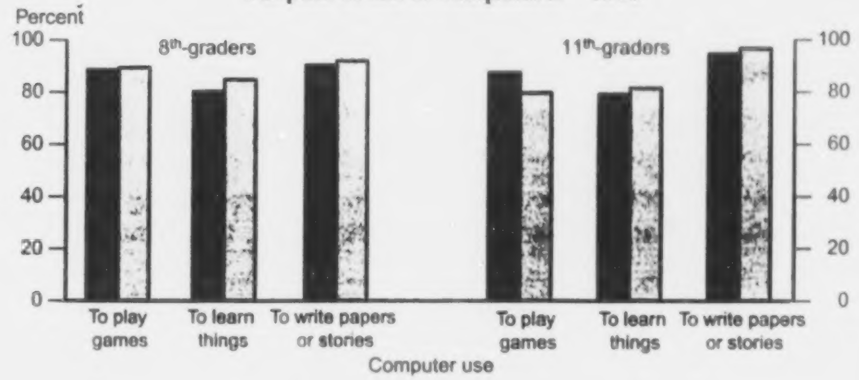
SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *NAEP 1996 Long-Term Writing Results—Data Almanacs for Grades 8 and 11.*

Percentage of 8th- and 11th-graders who reported using a computer, by sex and selected characteristics

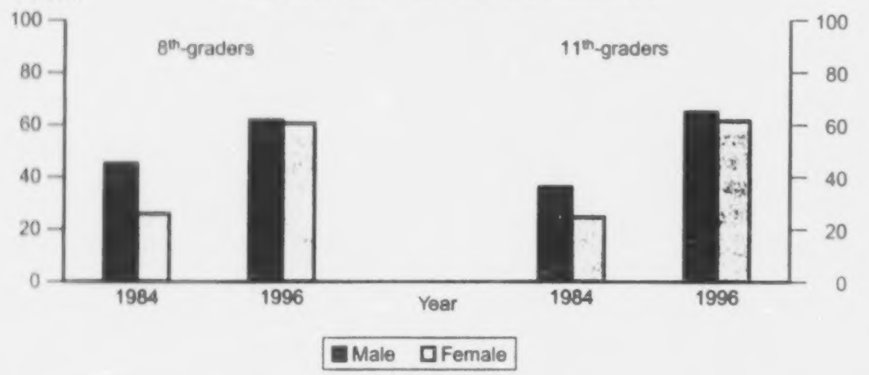
Everyday computer use at school: 1984 and 1996



Purpose of use of computers:* 1996



Computer use at home: 1984 and 1996



* Percentage among students who reported computer use.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *NAEP 1996 Trends in Academic Progress*, 1997.

Participation in afterschool activities

Female high school seniors are more likely to participate in most afterschool activities than their male peers, except for participation in athletics.

Afterschool activities offer students opportunities to develop academic and artistic skills, individual and group responsibility, physical strength and endurance, and a sense of community. Female seniors were more likely than their male peers to report participating in activities such as the school newspaper, music or other performing arts, academic clubs, and student council or government. Male seniors were more likely than their female peers to report participating on athletic teams. In 1995, for example, roughly half of the female seniors reported participating in music or other performing arts and on athletic teams. However, females' participation in athletics equalled or exceeded their participation in any other afterschool activity in 1995. One-third of male students reported participating in music and performing arts, whereas nearly two-thirds of male students reported participating in athletic teams.

Between 1989 and 1995, there was generally no change in the percentages of males and females reporting participation in each of these afterschool activities.

Percentage of high school seniors who reported participating* in afterschool activities during the school year, by sex: 1989, 1990, 1993, and 1995

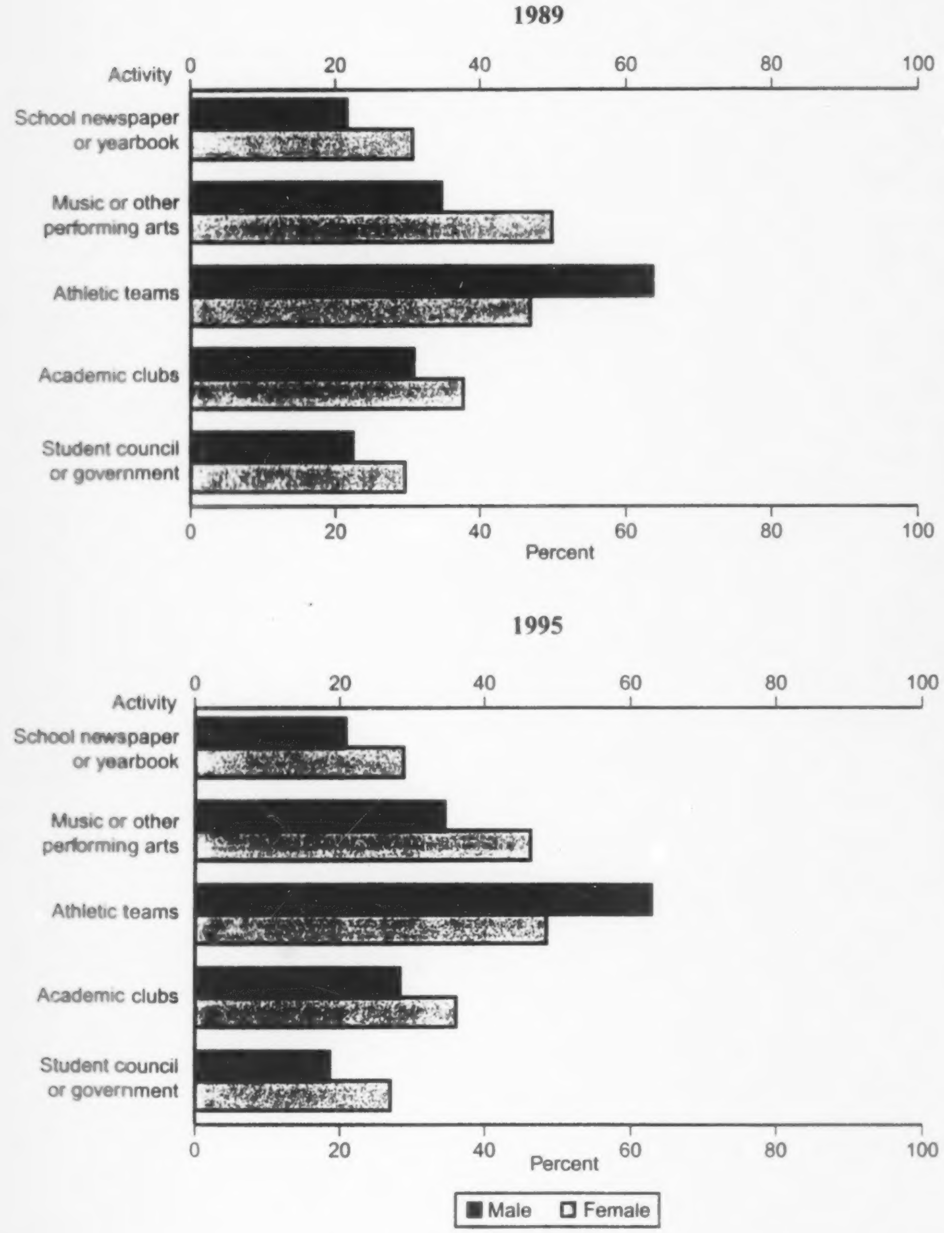
	1989		1990		1993		1995	
Activity	Men	Women	Men	Women	Men	Women	Men	Women
School newspaper or yearbook	21.6	30.7	22.2	29.0	18.3	26.3	20.8	28.8
Music or other performing arts	34.7	49.9	33.3	48.6	34.8	50.1	34.5	46.3
Athletic teams	63.7	46.9	64.7	46.2	65.4	47.4	62.9	48.5
Academic clubs	30.8	37.7	30.2	36.7	31.3	36.6	28.3	36.1
Student council or government	22.4	29.6	22.5	28.4	21.4	26.4	18.6	27.0

* Includes the following levels of participation: slight, moderate, considerable, and great extent.

NOTE: The response rate for this survey was less than 70 percent and a full nonresponse bias analysis has not been done to date.

SOURCE: University of Michigan, Institute for Social Research, *Monitoring the Future*, various years.

Percentage of high school seniors who reported participating* in afterschool activities during the school year, by sex: 1989 and 1995



* Includes the following levels of participation: slight, moderate, considerable, and great extent.

NOTE: The response rate for this survey was less than 70 percent and a full nonresponse bias analysis has not been done to date.

SOURCE: University of Michigan, Institute for Social Research, *Monitoring the Future*, various years.

Student attitudes toward school

Male and female high school seniors generally have similar attitudes toward school.

Although female high school seniors were previously more likely than their male peers to report positive attitudes toward school, this difference has disappeared in recent years. In 1980, 50 percent of female compared with 42 percent of male high school seniors reported liking school very much or quite a lot. In 1995, the percentage of male and female seniors who reported that they liked school very much or quite a lot was 38 and 36 percent, respectively.

Most students feel that the schoolwork assigned to them is at least sometimes meaningful and important. In 1980 and 1995, female high school seniors were less likely to report negative attitudes toward schoolwork than their male peers. In contrast, there were no differences in the percentages of male and female seniors who reported that the schoolwork that was assigned to them was almost always or often meaningful and important.

High school seniors' attitudes toward courses taken in school and the importance of what is learned in school toward later life generally show no difference between males and females. For example, in 1995, 29 percent of male high school seniors and 25 percent of female seniors reported that the courses they took in school were very exciting and stimulating or quite interesting, whereas 42 percent of male and 40 percent of female seniors reported that the things learned in school would be very important or quite important later in life. However, about one-quarter of males and females felt that the things they learned in school were only slightly important or not at all important for them in later life.

Percentage distribution of high school seniors who reported various attitudes toward school, by sex: 1980, 1990, and 1995

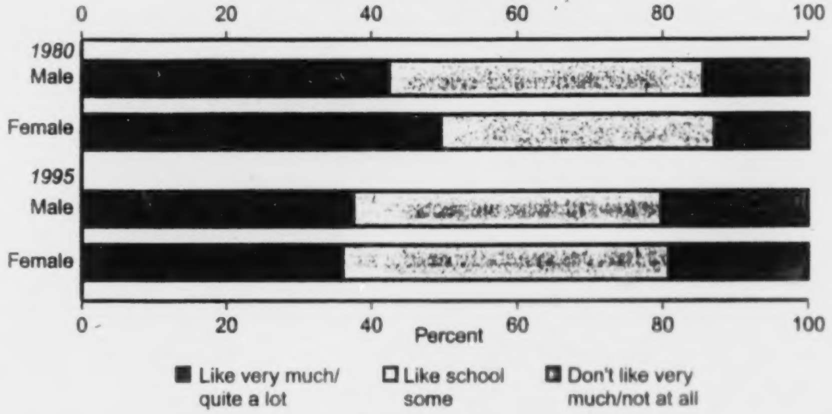
	1980			1990			1995		
Attitude	Total	Male	Female	Total	Male	Female	Total	Male	Female
How do you feel about school?									
Like very much/quite a lot	46.1	42.4	49.5	40.4	39.3	41.6	36.4	37.5	36.0
Like school some	40.3	43.2	37.7	42.5	43.7	41.6	43.6	42.4	44.9
Don't like very much/not at all	13.6	14.4	12.9	17.2	17.0	16.8	20.1	20.1	19.1
How often do you feel that the schoolwork you are assigned is meaningful and important?									
Almost always/often	42.2	40.1	43.8	36.2	35.2	37.0	33.2	32.9	33.4
Sometimes	39.8	39.1	40.8	41.5	41.0	42.5	41.8	37.5	46.2
Seldom/never	18.1	20.8	15.4	22.3	23.9	20.4	25.1	29.6	20.5
How interesting are most of your courses to you?									
Very exciting and stimulating/ quite interesting	37.9	35.4	39.8	30.4	29.6	31.6	26.5	28.5	24.7
Fairly interesting	42.3	42.4	42.6	45.5	45.4	46.1	46.7	42.7	51.0
Slightly dull/very dull	19.8	22.1	17.6	24.1	25.1	22.4	26.8	28.8	24.3
How important do you think the things you are learning in school are going to be for you later in life?									
Very important/quite important	52.3	50.4	53.8	44.3	45.0	43.8	41.1	42.3	39.8
Fairly important	30.4	31.1	30.2	32.5	31.9	33.4	33.6	30.1	36.9
Slightly important/not at all important	17.2	18.5	15.9	23.3	23.1	22.7	25.4	27.6	23.3

NOTE: The response rate for this survey was less than 70 percent and a full nonresponse bias analysis has not been done to date. Details may not add to 100.0 due to rounding.

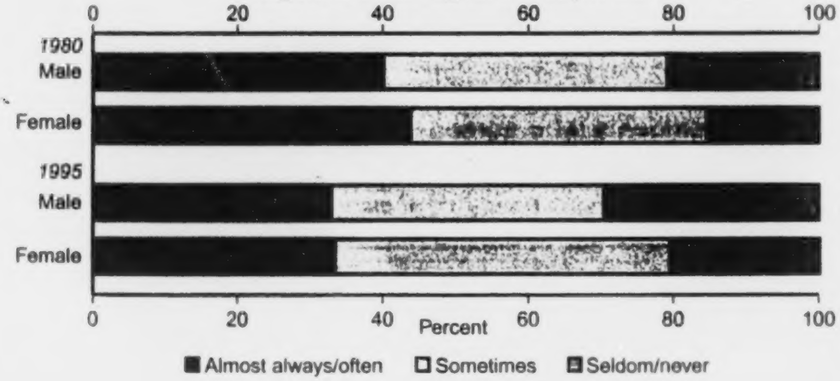
SOURCE: University of Michigan, Institute for Social Research, *Monitoring the Future*, various years.

Percentage distribution of high school seniors who reported various attitudes toward school, by sex: 1980 and 1995

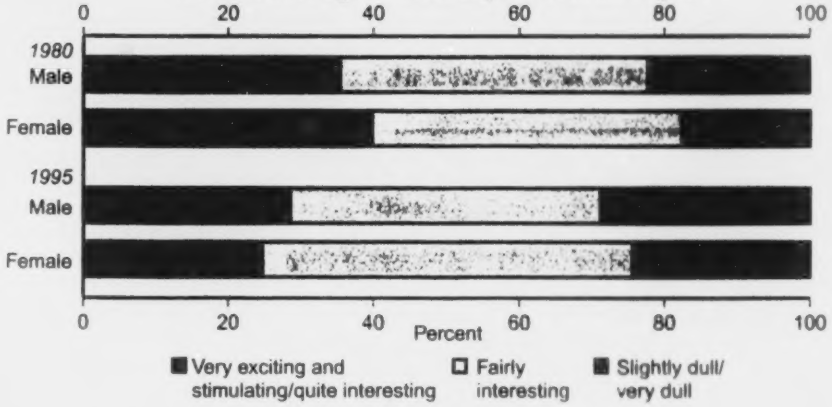
How do you feel about school?



How often do you feel that the schoolwork you are assigned is meaningful and important?



How interesting are most of your courses to you?



NOTE: The response rate for this survey was less than 70 percent and a full nonresponse bias analysis has not been done to date.

SOURCE: University of Michigan, Institute for Social Research, *Monitoring the Future*, various years.

Students' attitudes toward mathematics and science

Males have more positive attitudes than females about mathematics and science in 12th grade.

There has been much emphasis on females' achievement in both mathematics and science and the reasons why females tend to lag behind males in these areas. One reason for the differences in performance may be the perceptions males and females have toward these subjects.

In 4th grade, males and females generally have similar views about mathematics—they are equally likely to agree with the statements that they like mathematics, they understand most of mathematics class, and mathematics is useful in everyday problems. However, in 12th grade, males and females perceptions are not as similar—males are more likely than females to state that they like mathematics, they are good at mathematics, and they understand most of mathematics class.

For both mathematics and science, the percentages of females who say that they are good at these subjects are consistently lower than those of males. Some of the perceptions reported by males and females showed interesting patterns between 8th and 12th grade. Equal percentages of males and females reported that science was a hard subject in both 4th and 8th grades; however, in 12th grade, the percentage of males who reported that science was a hard subject increased by 7 percentage points, whereas the percentage of females who reported this perception increased by 18 percentage points.

Percentage of students who agreed with statements about mathematics, by grade and sex: 1996

	4th grade		8th grade		12th grade	
Statement	Male	Female	Male	Female	Male	Female
I like math	69	70	58	53	56	48
I am good at math	70	61	68	59	59	47
I understand most of math class	79	78	78	77	70	63
Math is mostly memorizing facts	55	53	45	37	35	34
Math is useful in everyday problems	70	68	80	81	70	73
With choice, I would not study more math	15	9	17	15	42	50
All can do well in math if they try	88	90	75	71	54	46

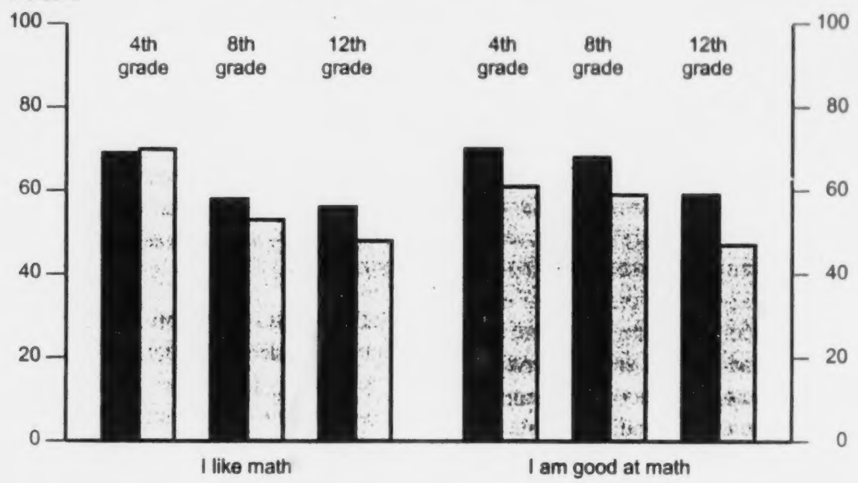
Percentage of students who agreed with statements about science, by grade and sex: 1996

	4th grade		8th grade		12th grade	
Statement	Male	Female	Male	Female	Male	Female
I like science	68	66	54	47	56	48
I am good at science	49	41	52	42	45	33
Science is mostly memorization	42	38	34	32	34	34
Science is useful for everyday problems	36	33	42	39	51	50
With choice, I would not study more science	19	15	22	24	30	36
Science is boring	17	13	27	28	23	26
Science is a hard subject	28	26	37	38	44	56

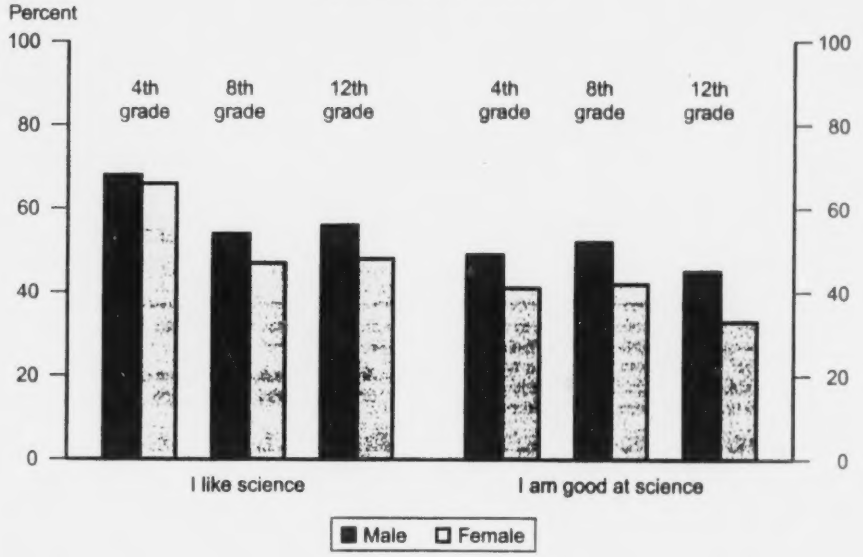
SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *Data Almanac*, 1996.

Percentage of students who agreed with statements about mathematics and science, by grade and sex: 1996

Opinions about mathematics



Opinions about science



SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *Data Almanac*, 1996.

Teachers and principals

The proportion of teachers and principals who were women was higher at elementary schools than at secondary schools.

In addition to providing educational services, teachers and principals provide guidance and adult role models for students. In 1993–94, the proportions of teachers who were females was higher than the proportion who were male at both public and private schools (73 and 75 percent female, respectively). However, the proportions of female teachers differed by school level. In 1993–94, the majority of elementary school teachers were female (84 and 88 percent for public and private schools, respectively), while in secondary schools the proportions of teachers were more equally distributed (53 and 49 percent of teachers were female for public and private schools, respectively).

While most teachers were females in 1993–94, the distribution of principals showed a different pattern. In public schools, 35 percent of principals were female, while 54 percent were female at private schools. In both public and private schools, principals at the secondary level were less likely to be female than at the elementary level.

Principals in large private schools (with 750 or more students) were more likely to be men than principals at smaller private schools (schools with less than 750 students). Thus, from students' perspectives, their principals would be even more likely to be men than the overall average would suggest.

Percentage distribution of teachers and principals, by sex, school level, and control of school: 1993–94

	Teachers				Principals			
Sex	Total	Elementary	Secondary	Combined	Total	Elementary	Secondary	Combined
					Public			
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Male	27.1	16.2	46.9	32.1	65.5	58.9	86.2	76.0
Female	72.9	83.8	53.1	67.9	34.6	41.1	13.8	24.0
					Private			
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Male	24.6	12.5	50.6	28.1	46.4	32.3	65.9	63.9
Female	75.4	87.6	49.4	71.9	53.6	67.7	34.0	36.1

NOTE: Elementary includes schools that only have grades below 8th grade; secondary includes schools that have grades between 7th and 12th grades; combined includes schools that have any other combination of grades. This analysis excludes a small number of teachers whose schools did not respond to the questionnaire. Details may not add to 100.0 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1993–94.

Percentage distribution of teachers and principals, by sex, school size, and control of school: 1993–94

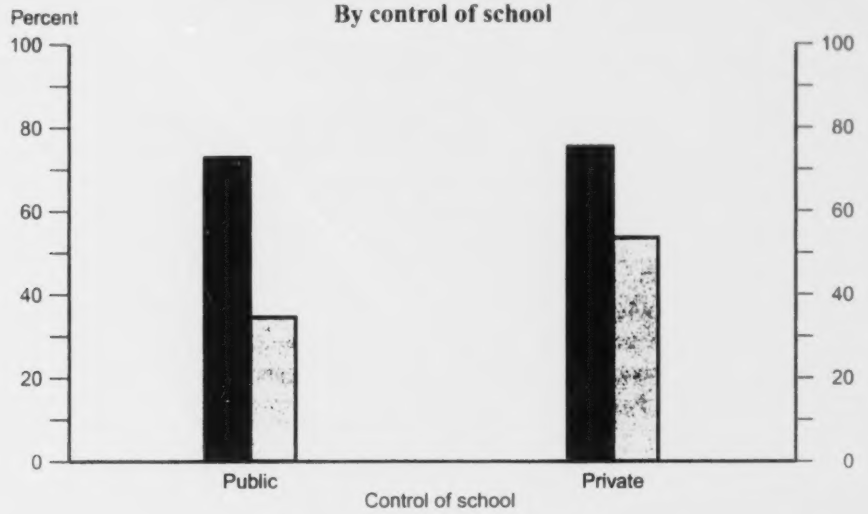
	Teachers				Principals			
Sex	Less than 150	150–499	500–749	750 or more	Less than 150	150–499	500–749	750 or more
					Public			
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Male	30.7	21.4	22.1	36.1	69.8	65.0	64.6	69.4
Female	69.3	78.6	77.9	63.9	30.2	35.0	35.4	30.6
					Private			
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Male	19.0	22.3	28.2	40.9	46.6	41.0	55.3	69.3
Female	81.0	77.7	71.8	59.1	53.4	59.0	44.7	30.7

NOTE: This analysis excludes a small number of teachers whose schools did not respond to the questionnaire. Details may not add to 100.0 due to rounding.

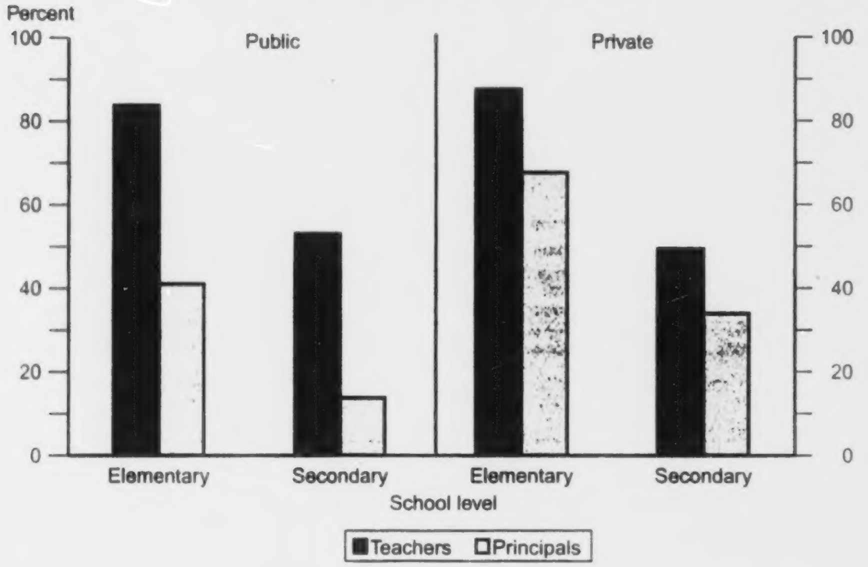
SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1993–94.

Percentage of teachers and principals who were female: 1993–94

By control of school



Public and private schools, by level



NOTE: Elementary includes schools that only have grades below 8th grade; secondary includes schools that have grades between 7th and 12th grades. Excludes a small number of teachers whose schools did not respond to the questionnaire.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1993–94.

Parent involvement

Parent involvement in school is similar for males and females at the elementary and middle school levels.

In 1996, at least two-thirds of children in grades K–5 who lived in two-parent families had mothers who were highly involved in their schools, compared with less than one-third of children who had fathers who were highly involved.

As with their younger peers, children in grades 6–8 who lived in two-parent families were more likely to have mothers (51 percent) who were highly involved in their school compared with their fathers (25 percent). Parent involvement in education was generally lower for children in middle school than for children in the elementary grades.

There generally was no difference between male and female students in terms of the level of parental involvement in school with the exception of students with single fathers. Female students in grades 6–8 were more likely than their male peers to have their single fathers be highly involved in school.

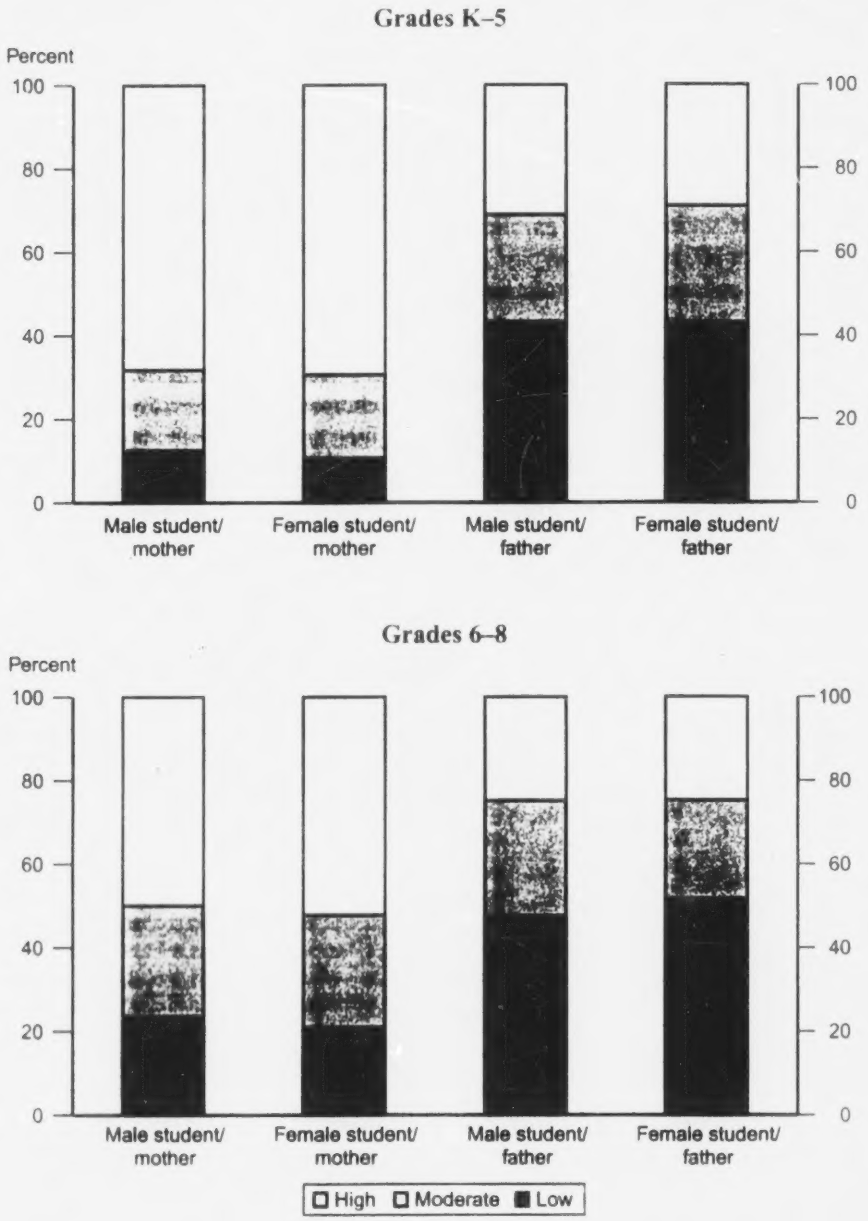
Percentage of children whose parents were involved in their schools, by family structure, level of involvement, grade, and sex: 1996

Grade level and sex of child	Two parents				Single parent			
	Mother's involvement		Father's involvement		Mother's involvement		Father's involvement	
	Low	High	Low	High	Low	High	Low	High
Grades K–5	11.6	68.8	43.1	30.1	16.3	59.5	21.0	53.2
Male	12.5	68.2	43.2	31.1	15.7	59.2	21.3	53.3
Female	10.6	69.4	43.1	29.0	17.0	59.8	20.5	53.0
Grades 6–8	22.3	51.0	49.5	24.7	27.7	44.5	29.4	52.7
Male	23.6	49.9	47.5	24.8	29.3	44.0	37.5	45.5
Female	20.9	52.2	51.7	24.7	26.1	44.9	15.6	65.0

NOTE: The NHES:96 asked about four types of school activities: attendance at a general school meeting, attendance at a regularly scheduled parent-teacher conference, attendance at a school or class event, and serving as a volunteer at school. Low involvement is participation in none or only one activity; high involvement is participation in three or four activities.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Father's Involvement in Their Children's Schools*, National Household Education Survey (NHES), 1997.

Percentage distribution of children from two-parent families whose parents were involved in their schools, by level of involvement, sex of parent and child, and grade level: 1996



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SOURCE: U.S. Department of Education, National Center for Education Statistics, *Father's Involvement in Their Children's Schools*, National Household Education Survey (NHES), 1997.

Enrollment in postsecondary institutions

Females make up more than half of all undergraduate and graduate students but less than half of all first-professional students.

Following substantial increases in the number of females on college campuses during the 1970s, the proportion of females enrolled in college increased steadily during the 1980s and into the 1990s. Females represented the majority of undergraduate and graduate students in 1996. Female undergraduate enrollment increased by over 100 percent in the past 25 years, whereas male undergraduate enrollment has increased by 27 percent during the same period (data not shown). Females have made up the majority of students at the graduate level for more than 10 years.

Females make up the majority of full-time students at both the undergraduate and graduate levels. Among undergraduate students, female students accounted for 41 percent of all full-time students in 1970, increasing to 54 percent by 1996. A similar pattern exists at the graduate level, with female students accounting for 30 percent of all full-time graduate students in 1970, increasing to 51 percent of all full-time graduate students by 1996.

Even more dramatic percentage increases in female enrollment occurred at the first-professional level. The largest increase occurred during the 1970s, when the enrollment of females at the first-professional level increased by over 400 percent over a 10-year period. In comparison, the enrollment of males at this level increased by 26 percent (data not shown). Increases in first-professional enrollment have continued each year, with females accounting for 9 percent of first-professional students in 1970 and 42 percent in 1996.

Percentage distribution of college students, by level, sex, and enrollment status: 1970–96

Year and enrollment status	Undergraduate[1]			Graduate			First-professional[2]		
	Total	Full time	Part time	Total	Full time	Part time	Total	Full time	Part time
1970	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Male	57.7	58.7	55.2	61.2	69.7	56.2	91.5	91.7	89.7
Female	42.3	41.3	44.8	38.8	30.3	43.8	8.5	8.3	10.3
1975	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Male	54.3	56.1	51.2	55.4	64.0	50.6	79.3	80.5	66.9
Female	45.7	43.9	48.8	44.6	36.0	49.4	20.7	19.5	33.1
1980	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Male	47.7	50.7	43.1	50.1	57.9	45.8	71.8	72.2	67.8
Female	52.3	49.3	56.9	49.9	42.1	54.2	28.2	27.8	32.2
1985	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Male	46.8	49.9	42.2	49.2	56.8	44.7	65.6	65.8	63.2
Female	53.2	50.1	57.8	50.8	43.2	55.3	34.4	34.2	36.8
1990	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Male	45.0	47.8	41.0	46.5	53.6	42.1	61.0	60.9	61.8
Female	55.0	52.2	59.0	53.5	46.4	57.9	39.0	39.1	38.2
1995	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Male	44.2	46.1	41.4	44.3	49.6	40.6	58.4	58.2	60.4
Female	55.8	53.9	58.6	55.7	50.4	59.4	41.6	41.8	39.6
1996	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Male	44.1	45.8	41.7	43.6	48.6	40.0	57.9	57.7	59.8
Female	55.9	54.2	58.3	56.4	51.4	60.0	42.1	42.3	40.3

[1] Includes unclassified undergraduate students.

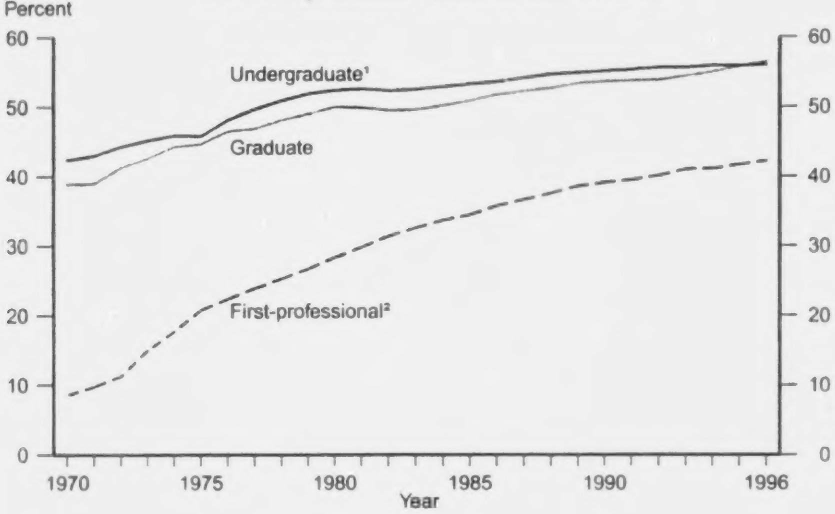
[2] First professional students are enrolled in the fields of dentistry (D.D.S. or D.M.D.), medicine (M.D.), optometry (O.D.), osteopathic medicine (D.O.), pharmacy (D.Phar.), podiatric medicine (D.P.M.), veterinary medicine (D.V.M.), chiropractic medicine (D.C. or D.C.M.), law (J.D.), and the theological professions (M.Div. or M.H.L.).

NOTE: Details may not add to 100.0 due to rounding.

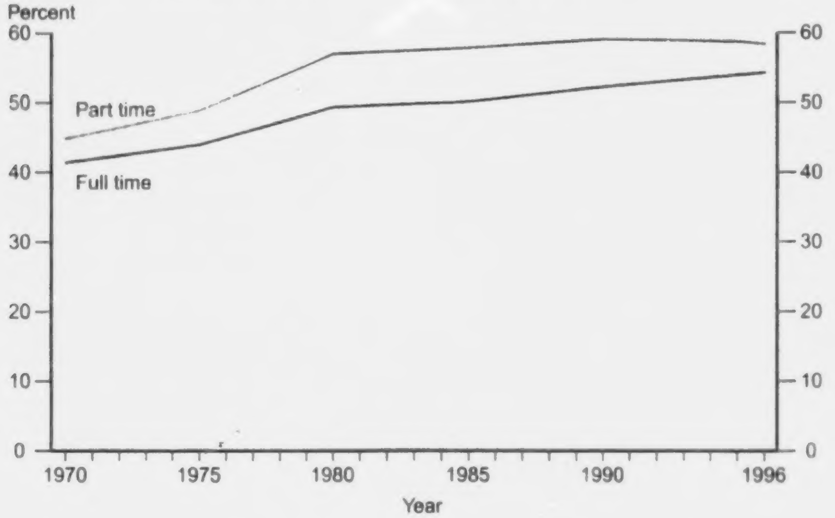
SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics 1998* (based on IPEDS "Enrollment" surveys).

Enrollment in postsecondary institutions

Females as percentage of total enrollment in undergraduate, graduate, and first-professional education: 1970–96[1]



Percentage of undergraduates who were female, by enrollment status: 1970–96



[1] Includes unclassified undergraduate students.

[2] First professional students are enrolled in the fields of dentistry (D.D.S. or D.M.D.), medicine (M.D.), optometry (O.D.), osteopathic medicine (D.O.), pharmacy (D.Phar.), podiatric medicine (D.P.M.), veterinary medicine (D.V.M.), chiropractic medicine (D.C. or D.C.M.), law (J.D.), and the theological professions (M.Div. or M.H.L.).

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics 1998* (based on IPEDS "Enrollment" surveys).

Persistence toward a bachelor's degree

Female freshmen seeking a bachelor's degree were more likely than their male peers to complete their degree within 5 years.

Degree completion is associated with increased employment opportunities and income potential. Among 1989–90 freshmen seeking a bachelor's degree, 46 percent reported completing a bachelor's degree by 1994, whereas 28 percent had received no degree and were no longer enrolled in a bachelor's degree program. Female freshmen were more likely than their male peers to have earned a bachelor's degree by 1994 (50 percent versus 41 percent). Males were more likely than females to have earned no degree and not to be enrolled.

Among all female freshmen seeking a bachelor's degree in 1989–90, white female freshmen were more likely than their black peers to have earned a bachelor's degree by 1994.

Percentage distribution of 1989–90 freshmen seeking bachelor's degrees according to persistence and completion status by spring 1994, by selected characteristics

Selected characteristics	Highest degree completed[1] Bachelor's	Associate's	Certificate	Still enrolled for bachelor's[2]	No degree, not enrolled for bachelor's degree[3]
Total	**45.8**	**5.1**	**3.4**	**17.5**	**28.3**
Sex					
Male	41.3	4.8	2.7	20.3	30.9
Female	50.3	5.4	4.0	14.6	25.7
Race–ethnicity within sex					
Male					
White	43.4	4.3	2.6	19.8	30.0
Black	29.9	7.9	3.0	20.4	38.8
Hispanic	24.8	4.7	5.9	20.9	43.8
Asian/Pacific Islander	47.2	5.8	0.0	26.0	21.1
Female					
White	53.1	5.6	4.1	13.3	23.9
Black	37.0	7.1	3.9	16.6	35.5
Hispanic	39.9	2.3	4.9	23.3	29.7
Asian/Pacific Islander	46.6	4.8	1.2	17.8	29.6

[1] Includes students who are no longer working toward a bachelor's degree but who had completed another type of degree or award.

[2] Includes students who had completed another type of degree or award (associate's degree: 11.8 percent; certificate: 2.7 percent) but who are still working toward a bachelor's degree.

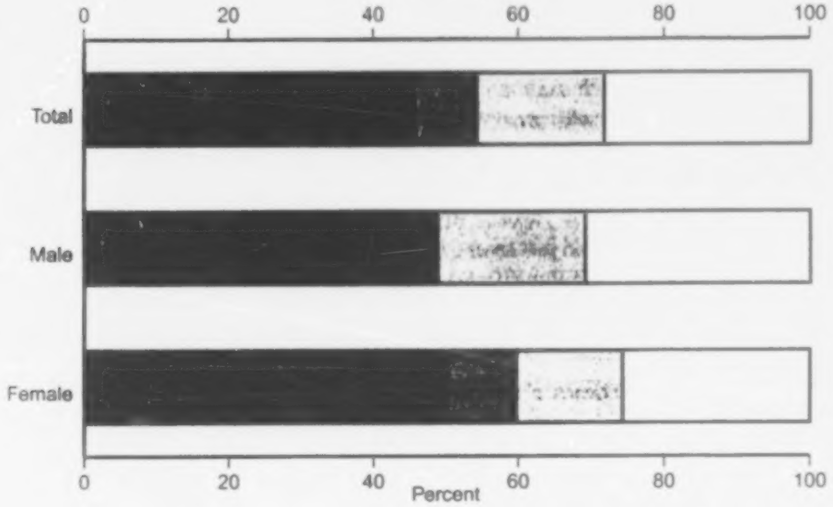
[3] Includes students who are still enrolled but who are no longer working toward a bachelor's degree.

NOTE: Included in the total but not shown separately are American Indians/Alaskan Natives. Details may not add to totals due to rounding.

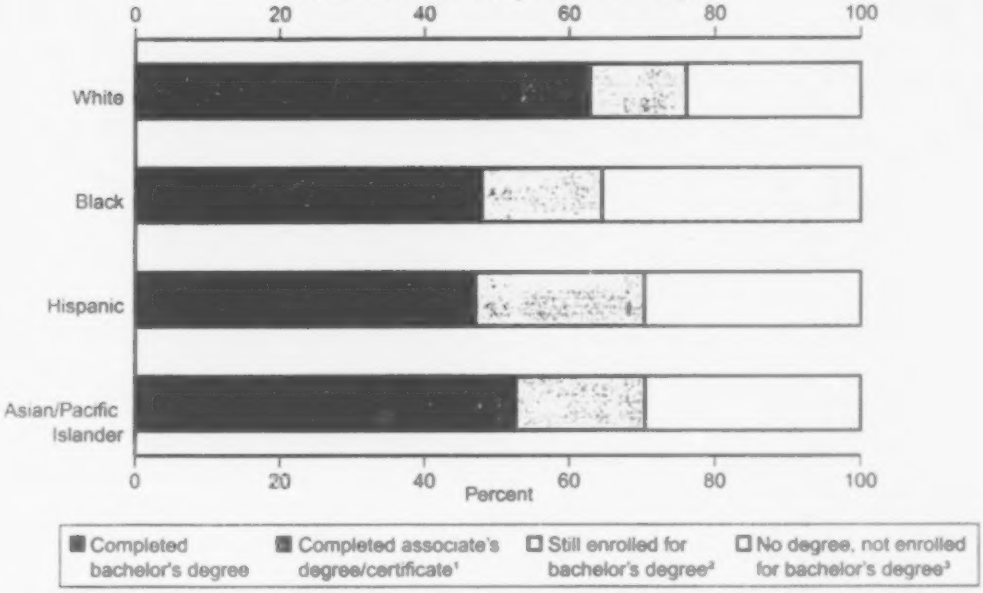
SOURCE: U.S. Department of Education, National Center for Education Statistics, 1990 Beginning Postsecondary Students Longitudinal Study, Second Follow-up (BPS:90/94).

Percentage distribution of freshmen beginning bachelor's degrees in 1989–90 according to completion status by spring 1994, by selected characteristics

All freshmen, by sex



Female freshmen, by race–ethnicity



[1] Includes students who are no longer working toward a bachelor's degree but who had completed another type of degree or award.

[2] Includes students who had completed another type of degree or award (associate's degree: 11.8 percent; certificate: 2.7 percent) but who are still working toward a bachelor's degree.

[3] Includes students who are still enrolled but who are no longer working toward a bachelor's degree.

NOTE: Included in the total but not shown separately are American Indians/Alaskan Natives.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1990 Beginning Postsecondary Students Longitudinal Study, Second Follow-up (BPS:90/94).

Working while enrolled in college

About half of all full-time female college students work while attending school.

It has become increasingly common for full-time college students to work while they attend school. The percentages of both male and female full-time college students who work have increased since 1980. About 40 percent of both males and females worked while attending college full time in 1980, and those figures increased to 47 percent for males and just over 51 percent for females by 1996. Similar percentage of male and female full-time students were employed in 1996.

Working while in school becomes a concern when it conflicts with academic performance. The more students work to pay school expenses, the more likely they report that working has a negative effect on their grades. (See *The Condition of Education, 1998*, Indicator 52.) Of the part-time students who were employed in 1996, 51 percent of males and 46 percent of females worked 35 hours or more per week. Of the full-time male college students who were employed, 8 percent worked 35 hours or more per week, compared with 6 percent of female college students who were employed.

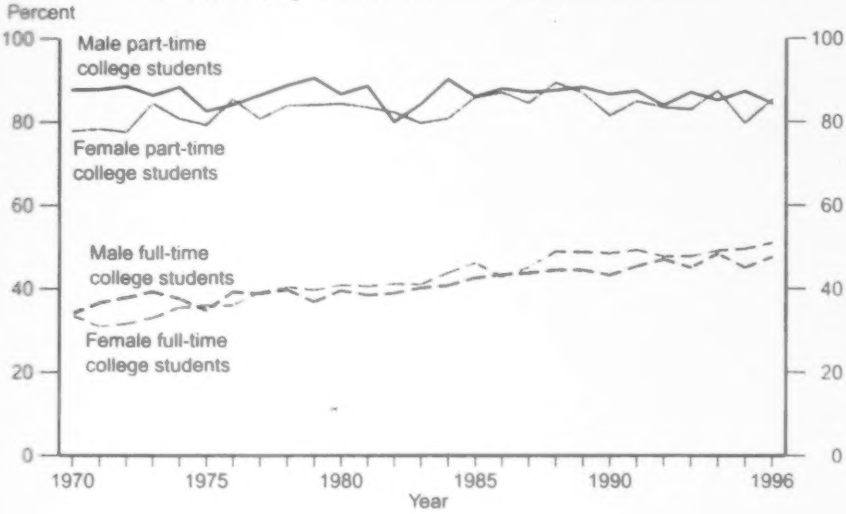
Percentage of college students ages 16–24 who were employed in October, by sex, hours worked per week, and enrollment status: 1980–96

	Male			Female		
October	Total	20 or more hours	35 or more hours	Total	20 or more hours	35 or more hours
			Full-time college students			
1980	39.4	19.0	4.4	40.7	16.7	3.2
1985	42.4	22.1	4.9	46.0	20.9	3.7
1990	43.1	23.2	5.0	48.3	25.0	4.6
1991	45.2	26.5	6.5	49.1	24.4	4.7
1992	46.8	25.8	6.6	47.5	25.8	4.5
1993	44.9	24.6	5.1	47.6	24.6	5.1
1994	48.2	28.8	6.6	49.0	26.4	5.2
1995	44.9	27.4	7.8	49.4	26.2	5.2
1996	47.4	30.8	8.2	50.8	28.0	5.9
			Part-time college students			
1980	86.5	80.2	58.2	84.2	72.3	49.1
1985	85.9	80.0	53.6	85.7	78.3	51.2
1990	86.4	82.6	55.4	81.3	75.4	50.5
1991	87.2	79.3	50.2	84.7	73.9	51.7
1992	83.7	75.8	44.1	83.2	74.5	50.3
1993	86.9	79.6	47.4	82.8	71.4	40.7
1994	85.0	76.4	47.6	87.3	73.7	40.9
1995	87.2	76.4	48.8	79.5	69.8	37.2
1996	84.3	76.2	51.0	85.2	74.9	45.7

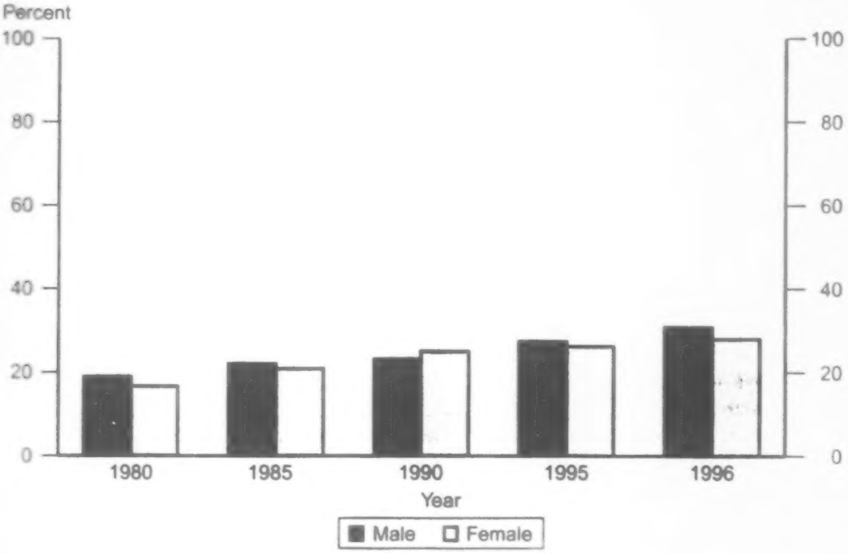
SOURCE: U.S. Department of Education, National Center for Education Statistics, *The Condition of Education 1997* and unpublished tabulations.

Percentage of college students ages 16–24 who were employed in October, by sex and hours worked per week: 1980–96

Percentage of college students ages 16–24 who were employed in October, by sex and enrollment status: 1970–96



Percentage of college students ages 16–24 who were employed in October and who worked 20 or more hours per week, by sex: 1980–96



SOURCE: U.S. Department of Education, National Center for Education Statistics, *The Condition of Education 1997* and unpublished tabulations.

Bachelor's degrees

Females currently earn over half of all bachelor's degrees, an increase from the early 1970s.

Females have made great strides in higher education over the past 25 years, earning more than 50 percent of all bachelor's degrees in 1996. The percentage of degrees conferred to females exceeded that of degrees conferred to males within some fields of study in 1996, such as health professions/related sciences (82 percent), education (75 percent), and biological/life sciences (53 percent). Fields in which females were close to 50 percent of degree recipients included business (49 percent) and social sciences/history (48 percent).

Historically, female majority fields, such as health professions (e.g., nursing) and education, have led to lower paying occupations than more technically oriented male majority fields, such as engineering or physical sciences. However, the percentage of bachelor's degrees conferred to females in traditionally male-majority fields has changed in recent years. For example, in computer and information sciences, females accounted for 13 percent of bachelor's degrees in 1970, which increased to 37 percent in 1985 and declined to 28 percent by 1996. The percentage of bachelor's degrees conferred to females in physical sciences and science technologies has increased from 14 percent in 1970 to 36 percent in 1996.

Percentage of bachelor's degrees conferred to females, by selected fields of study: School years ending 1970–96

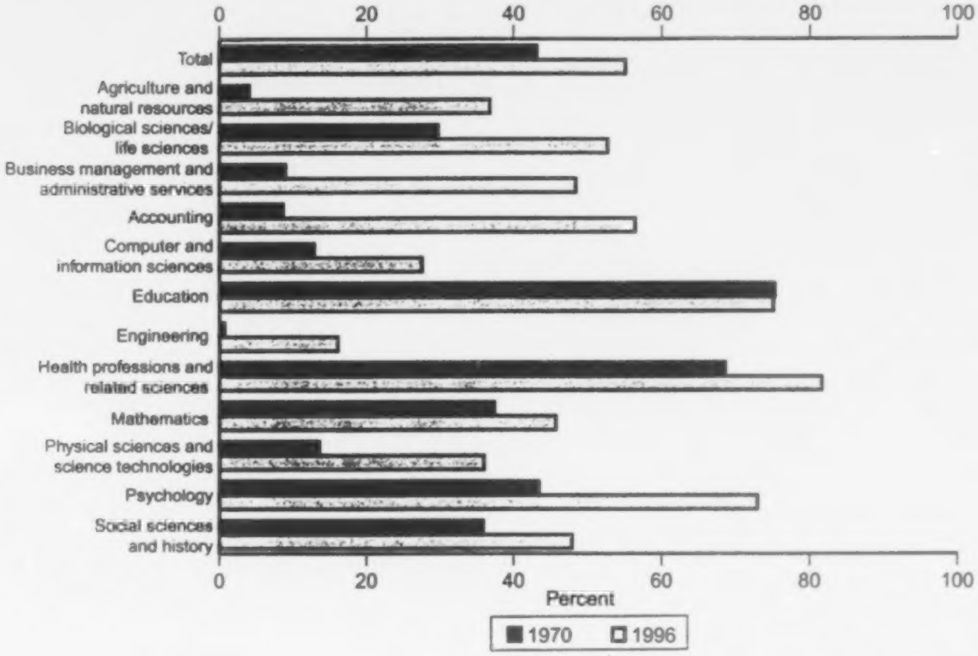
Field of study	1970	1975	1980	1985	1990	1994	1995	1996
Total*	**43.1**	**45.3**	**49.0**	**50.7**	**53.2**	**54.5**	**54.6**	**55.1**
Agriculture and natural resources	4.1	14.1	29.6	31.1	31.6	35.0	36.0	36.8
Biological sciences/life sciences	29.7	33.1	42.1	47.8	50.8	51.2	52.3	52.7
Business management and administrative services	9.0	16.2	33.1	44.9	46.5	47.3	47.7	48.4
Accounting	8.7	17.7	36.1	49.1	53.3	55.1	56.2	56.4
Computer and information sciences	12.9	18.9	30.2	36.8	29.9	28.4	28.4	27.5
Education	75.3	73.3	73.8	75.9	78.1	77.3	75.8	75.1
Engineering	0.7	2.2	9.3	13.1	13.8	14.9	15.6	16.1
Health professions and related sciences	68.6	77.7	82.2	84.9	84.4	82.4	81.9	81.6
Mathematics	37.4	41.2	41.5	46.2	45.7	46.3	46.8	45.7
Physical sciences and science technologies	13.6	18.2	23.7	28.0	31.3	33.6	34.8	36.0
Psychology	43.4	52.6	63.3	68.2	71.5	73.0	72.9	73.0
Social sciences and history	35.9	37.3	43.6	44.1	44.2	46.1	46.8	47.9

* Includes other fields of study not shown separately.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics 1998* (based on IPEDS "Completions" surveys).

Bachelor's degrees

Percentage of bachelor's degrees conferred to females, by selected fields of study: School years ending 1970 and 1996



SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics*, 1998 (based on IPEDS "Completions" surveys).

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Bachelor's degrees for minority females

Minority females are more likely than minority males to earn bachelor's degrees.

The general increase in the proportion of degrees awarded to females has been reflected in increases in the proportion of degrees awarded to minority females. In 1996–97, white females received about 55 percent of the bachelor's degrees awarded to white students. Except for Asian or Pacific Islander females, minority females were even more likely to earn the bachelor's degrees within their minority groups. Black women earned 64 percent of the degrees awarded to blacks and Hispanic females earned 57 percent of degrees awarded to Hispanics. American Indian/Alaskan Native females also earned a higher proportion of bachelor's degrees than the average for all females.

These patterns were reflected in most fields of study. Black females earned a majority of the degrees conferred to blacks in 12 out of 14 specific major fields compared with 8 out of 14 for white females. The only exceptions where white women earned higher proportions were education and visual and performing arts. The differences in many technical fields were substantial, with black females earning 49 percent of the bachelor's degrees awarded to blacks in computer science and 30 percent of the degrees in engineering. In contrast, white females earned 23 percent of the degrees in computer science and 15 percent of the degrees in engineering. Hispanic and American Indian/Alaskan Native females also earned a higher proportion of degrees conferred within their racial or ethnic groups in most fields of study compared with white females. Minority females of all racial–ethnic groups had higher proportions of degrees conferred within each group, compared with white females in many technical fields of study, such as computer sciences, engineering, and physical sciences.

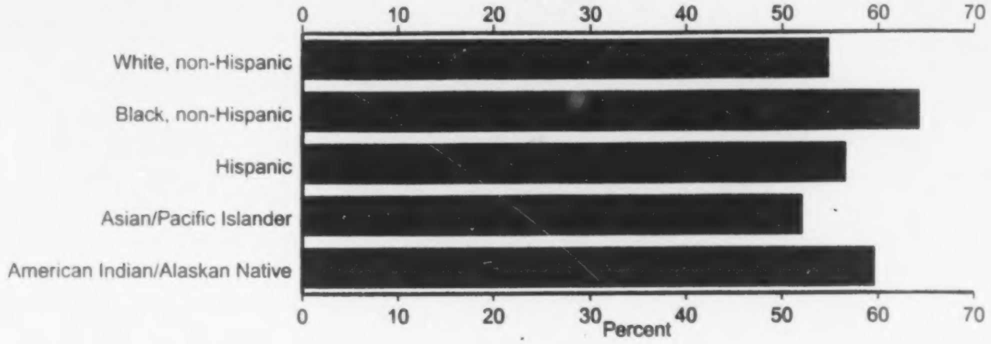
Percent of degrees awarded to females, by race–ethnicity and selected fields of study: 1996–97

Field of study	White, non-Hispanic	Black, non-Hispanic	Hispanic	Asian/ Pacific Islander	American Indian/ Alaskan Native
Total	**54.7**	**64.1**	**56.5**	**52.0**	**59.5**
Agriculture and natural resources	38.1	48.7	44.6	54.2	48.1
Biological sciences and life sciences	52.8	68.3	54.2	53.0	54.0
Business management and administrative services	46.8	61.4	52.3	53.8	53.0
Communications	57.7	64.3	62.6	64.0	69.1
Computer and information sciences	22.8	48.9	32.6	30.3	28.7
Education	75.2	74.1	76.1	70.9	75.8
Engineering	15.2	30.0	18.4	20.1	22.5
English language and literature	65.7	74.3	66.0	69.6	62.4
Health professions and related sciences	81.8	85.4	78.0	74.8	79.0
Mathematics	46.3	52.2	41.8	43.5	50.0
Physical sciences and science technologies	34.9	58.0	39.0	45.8	42.7
Psychology	73.7	76.0	75.1	70.3	75.0
Social sciences and history	46.8	59.6	53.2	52.3	54.4
Visual and performing arts	58.7	54.2	53.8	61.7	50.2
Other	58.0	65.4	63.1	58.7	60.5

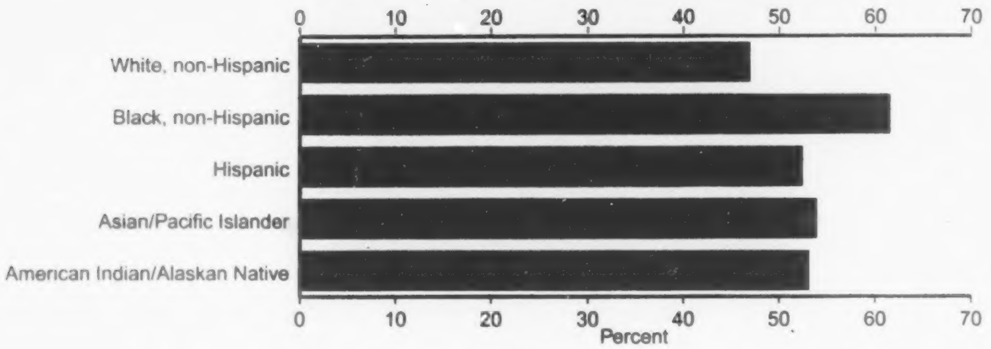
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Completions" survey.

Percent of degrees awarded to females, by race–ethnicity and field of study: 1996–97

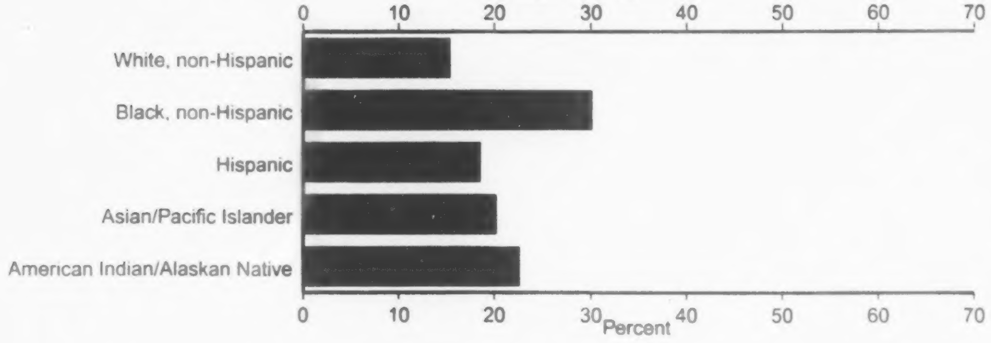
All fields



Business management and administrative services



Engineering



SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Completions" survey.

College majors for males and females

The proportion of females earning their degrees in education was lower in 1996–97 than in 1976–77, whereas the proportion earning degrees in business was higher.

The distribution of females and males by field of study allows for a comparison of the types of majors chosen by college students. The concentration of females in some fields traditionally characterized as having high proportions of females has decreased, whereas the concentration of females in some areas that had formerly been mostly male has increased. There is some evidence that the pattern of fields of degrees awarded to females is beginning to more closely resemble that of males.

In 1976–77, 23 percent of male bachelor's degree recipients earned their degree in business, about the same as the corresponding 22 percent in 1996–97. The proportion of females earning degrees in business was 8 percent in 1976–77 and 17 percent in 1996–97, resulting in a narrowing of the difference between males and females from 15 to 5 percentage points. Although there was some decline in the proportion of males earning their bachelor's degree in education over the 20-year span, there was an even larger drop in the proportion of females, from 24 to 12 percent. As a result of this sharp drop, the male–female difference in the proportion of education degree recipients fell from 16 to 7 percentage points.

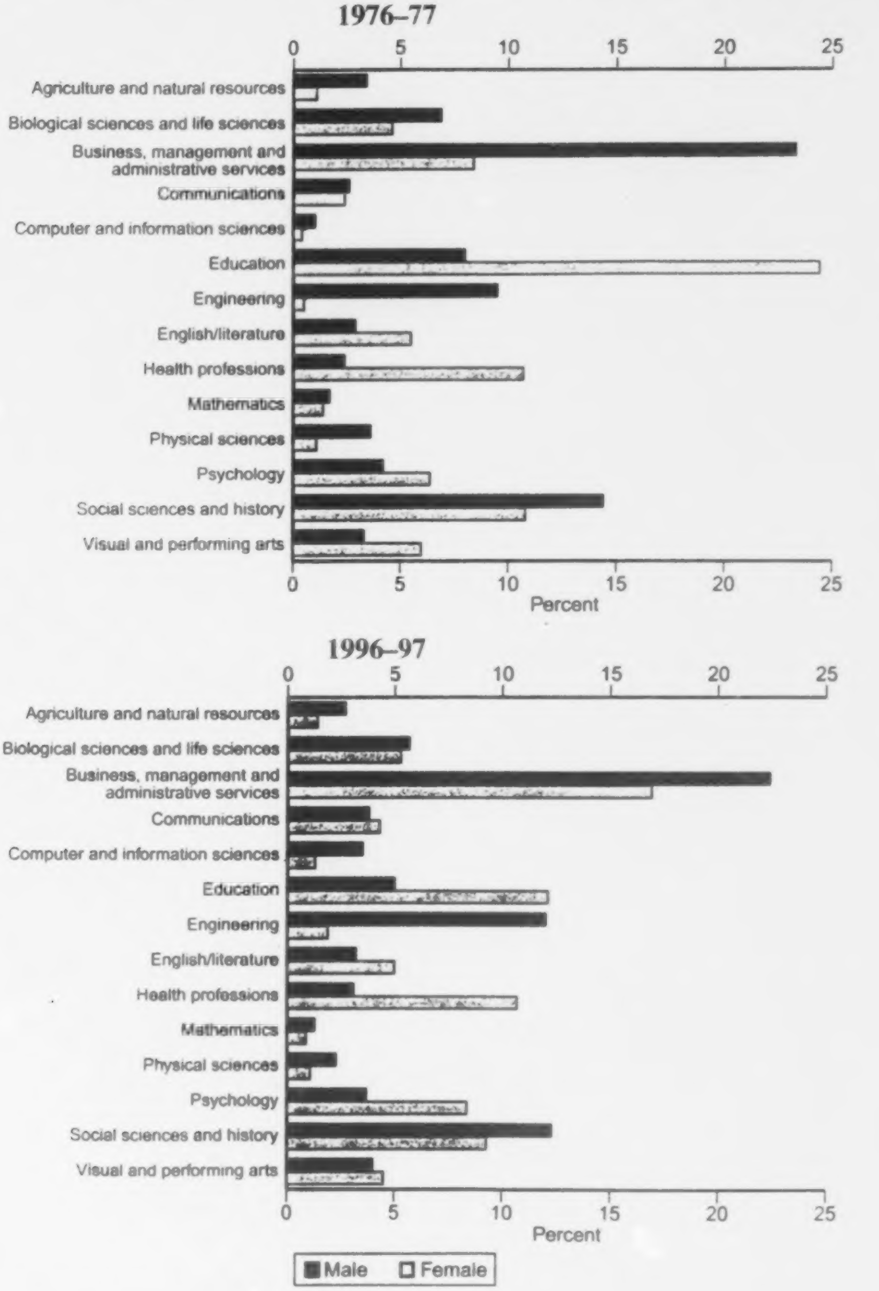
Although the male–female gap declined in many fields of study, some areas had small increases in the gap between male and female distributions, including psychology and computer science. The proportion of males earning degrees in psychology dropped slightly between 1976–77 and 1996–97, whereas the proportion for females rose from 6 to 8 percent.

Percentage distribution of bachelor's degrees conferred according to field of study, by sex: 1976–77, 1986–87, and 1996–97

	Male			Female		
Field of study	1976–77	1986–87	1996–97	1976–77	1986–87	1996–97
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Agriculture and natural resources	3.4	2.1	2.7	1.1	0.9	1.4
Biological sciences and life sciences	6.9	4.1	5.7	4.6	3.6	5.3
Business management and administrative services	23.3	26.7	22.4	8.4	21.9	16.9
Accounting	5.9	4.4	3.4	2.3	4.4	3.5
Communications	2.6	3.8	3.8	2.4	5.3	4.3
Computer and information sciences	1.0	5.4	3.5	0.4	2.7	1.3
Education	8.0	4.3	5.0	24.4	13.0	12.1
Engineering	9.5	16.7	12.0	0.5	2.5	1.9
English language and literature	2.9	2.6	3.2	5.5	4.7	5.0
Health professions and related sciences	2.4	1.9	3.1	10.7	10.6	10.7
Mathematics	1.7	1.9	1.3	1.4	1.5	0.9
Physical sciences and science technologies	3.6	3.0	2.3	1.1	1.1	1.1
Psychology	4.2	2.8	3.7	6.4	5.8	8.4
Social sciences and history	14.4	11.2	12.3	10.8	8.3	9.3
Visual and performing arts	3.3	2.9	4.0	6.0	4.5	4.5
Other	12.9	10.7	15.0	16.3	13.5	16.9

SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Completions" survey.

Percentage distribution of bachelor's degrees conferred according to field of study, by sex: 1976–77 and 1996–97



SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Completions" survey.

Graduate degrees

Females have made substantial progress in attaining graduate-level degrees in the past 25 years.

Females have made substantial gains in the graduate fields males dominated over 25 years ago. Between 1970 and 1996, the percentage of master's degrees earned by females increased from 4 to 38 percent in business, 1 to 17 percent in engineering, and 14 to 32 percent in the physical sciences. Although these were substantial gains, the percentage of degrees earned by females in these fields was still not equal to those earned by their male counterparts.

Although females earn less than half of first-professional degrees conferred, the percentage of degrees earned by females in dentistry, medicine, and law increased from less than 10 percent in 1970 to 36, 41, and 44 percent, respectively, in 1996.

Males earn a greater percentage of doctor's degrees across many fields, with the exception of education (62 percent females), psychology (66 percent females), and health professions (57 percent females). The percentage of doctor's degrees earned by females increased to 42 percent in biological and life sciences and 38 percent in social sciences and history. However, females still lag much further in more technical fields, such as engineering (13 percent) and computer science (15 percent).

The percentage of master's and doctor's degrees conferred to females increased to the highest proportions in fields in which females were more likely to earn bachelor's degrees, such as education, health sciences, and psychology.

Percentage of master's, first-professional, and doctor's degrees conferred to females in selected fields of study: School years ending 1970–96

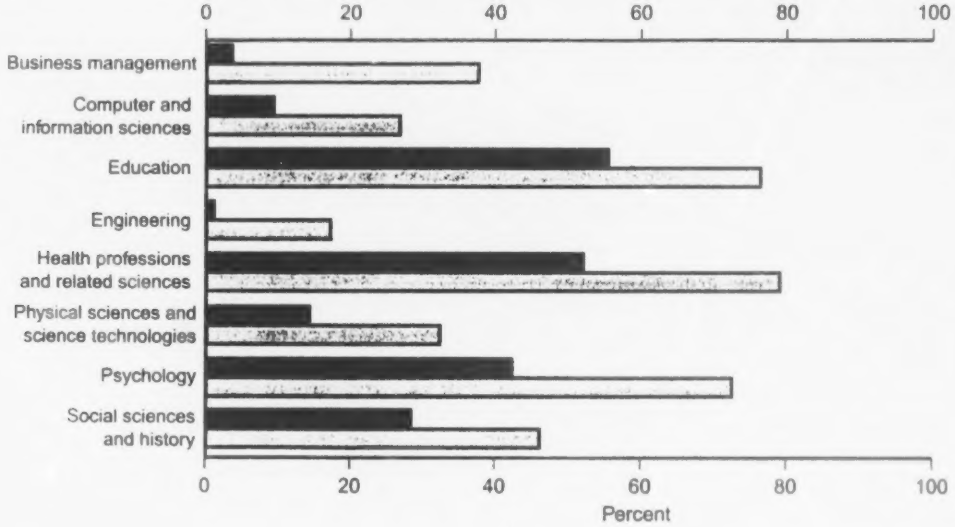
Selected fields of study	1970	1975	1980	1985	1990	1994	1995	1996
Master's degrees	**39.7**	**44.8**	**49.4**	**49.9**	**52.6**	**54.5**	**55.1**	**55.9**
Business management	3.6	8.5	22.4	31.0	34.0	36.5	37.0	37.6
Computer and information sciences	9.3	14.7	20.9	28.7	28.1	25.8	26.1	26.7
Education	55.4	62.3	70.2	72.5	75.9	76.7	76.5	76.3
Engineering	1.1	2.4	7.0	10.7	13.8	15.5	16.3	17.2
Health professions and related sciences	52.0	61.7	72.3	76.3	77.7	79.3	78.4	79.0
Physical sciences and science technologies	14.2	14.4	18.6	23.2	26.4	29.2	30.2	32.2
Psychology	42.3	46.4	58.8	65.1	68.5	72.1	72.0	72.4
Social sciences and history	28.3	30.1	36.0	38.4	40.7	44.0	44.7	46.1
First-professional degrees*	**5.3**	**12.4**	**24.8**	**32.8**	**38.1**	**40.7**	**40.8**	**41.7**
Dentistry	0.9	3.1	13.3	20.7	30.9	38.5	36.4	35.8
Medicine	8.4	13.1	23.4	30.4	34.2	37.9	38.8	40.9
Law	5.4	15.1	30.2	38.5	42.2	43.0	42.6	43.5
Doctor's degrees	**13.3**	**21.3**	**29.7**	**34.1**	**36.4**	**38.5**	**39.4**	**39.9**
Business management	1.6	4.2	14.7	17.2	25.2	28.2	27.3	29.2
Biological sciences/life sciences	14.3	22.0	26.0	32.8	37.7	40.7	40.3	42.0
Computer and information sciences	1.9	6.6	11.3	10.1	14.8	15.4	18.2	14.5
Education	19.8	30.4	43.9	52.0	57.3	60.8	62.0	62.2
Engineering	0.7	2.1	3.8	6.4	8.9	11.1	11.9	12.5
Physical sciences and science technologies	5.4	8.3	12.4	16.2	19.4	21.7	23.5	23.1
Health professions and related sciences	16.2	28.6	44.7	52.9	54.2	58.5	58.1	56.7
Psychology	23.3	32.1	43.4	49.6	58.9	62.2	62.6	66.1
Social sciences and history	12.8	20.8	27.0	32.2	32.9	36.1	37.7	37.8

* First professional degrees are degrees awarded in the fields of dentistry (D.D.S. or D.M.D.), medicine (M.D.), optometry (O.D.), osteopathic medicine (D.O.), pharmacy (D.Phar.), podiatric medicine (D.P.M.), veterinary medicine (D.V.M.), chiropractic medicine (D.C. or D.C.M.), law (J.D.), and the theological professions (M.Div. or M.H.L.).

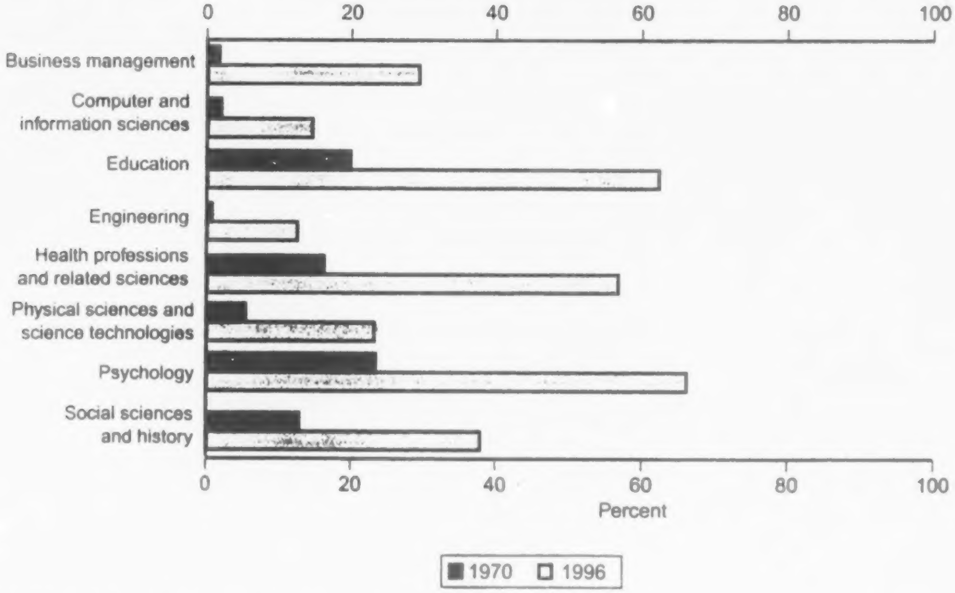
SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics 1998* (based on IPEDS "Completions" surveys).

Graduate degrees

Percentage of master's degrees conferred to females in selected fields of study: 1970 and 1996



Percentage of doctor's degrees conferred to females in selected fields of study: 1970 and 1996



SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics 1998* (based on IPEDS "Completion" surveys).

Higher education faculty

Although an increasing proportion of higher education faculty are females, the disparity in salaries between male and female faculty members has not decreased.

Historically most faculty members have been men, although the proportion of faculty who are women is growing. The percentage of all full-time faculty who were women increased from 29 to 35 percent between 1987 and 1995, and the percentage of part-time faculty who were women increased from 42 to 47 percent.

However, salary gaps between the sexes have remained relatively unchanged. During the 1972–73 school year, female full-time faculty had an average salary that was 83 percent of that of their male peers. This figure dropped to 81 percent during the 1996–97 school year.

Salary gaps for female full-time professors and assistant professors remained the same in 1995–96 as they were in 1972–73. Females with the rank of full professor had salaries that averaged 88 percent of the salaries of their male peers in both academic years, and female assistant professor had salaries that averaged 94 percent of the salaries of male assistant professors.

Percentage of full- and part-time higher education faculty who were females, by control and type of institution: Fall 1987–95

	Part-time	Full-time						
			Control and type of institution					
			Public			Private		
Year	All institutions	All institutions	Total	2-year	4-year	Total	2-year	4-year
1987	42.2	28.6	28.6	35.1	25.9	28.8	49.1	27.6
1989	43.9	30.2	30.4	41.0	27.0	29.6	45.7	28.8
1991	45.2	31.6	32.1	43.0	28.4	30.6	46.5	29.8
1993	46.5	33.4	33.9	45.2	30.0	32.3	44.9	31.8
1995	46.8	34.6	35.1	46.5	31.3	33.6	45.2	33.1

SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), "Fall Staff" survey, various years.

Ratio of females' to males' average salary for full-time higher education faculty, by control and type of institution and academic rank: Academic years 1972–73 to 1996–97

	Control and type of institution							Academic rank	
Academic year	All institutions	Public			Private			Full professor	Assistant professor
		Total	2-year	4-year	Total	2-year	4-year		
1972–73	0.83	0.84	0.92	0.82	0.78	0.93	0.79	0.88	0.94
1975–76	0.82	0.84	0.90	0.81	0.78	0.90	0.78	0.89	0.95
1980–81	0.82	0.83	0.90	0.81	0.77	0.86	0.77	0.90	0.95
1985–86	0.80	0.82	0.90	0.80	0.76	0.91	0.76	0.89	0.92
1990–91	0.80	0.81	0.90	0.80	0.76	0.87	0.77	0.88	0.92
1995–96	0.81	0.82	0.91	0.81	0.79	0.92	0.79	0.88	0.94
1996–97*	0.81	0.82	0.92	0.81	0.79	0.88	0.79	0.88	0.94

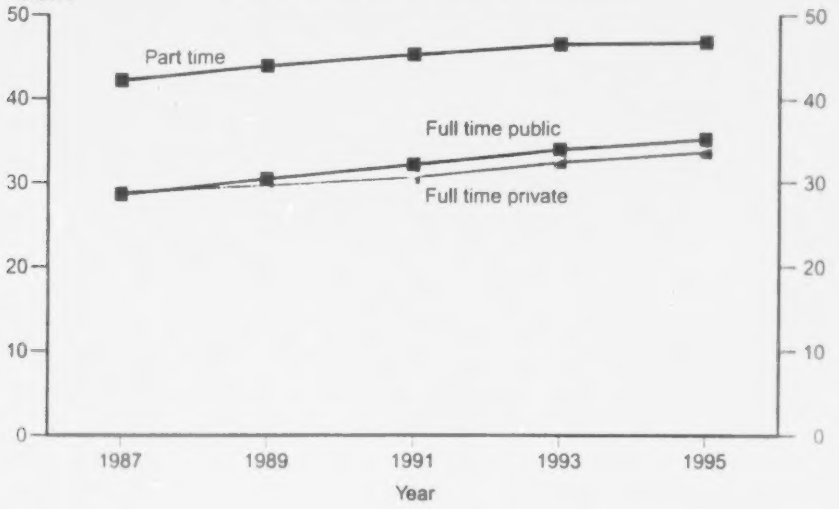
* Data for 1996–97 are for degree-granting institutions. Survey coverage is slightly wider than data for higher education institutions.

NOTE: Data are for instructional faculty on 9-month contracts. Data for 1990–91 through 1996–97 include imputations for nonrespondent institutions.

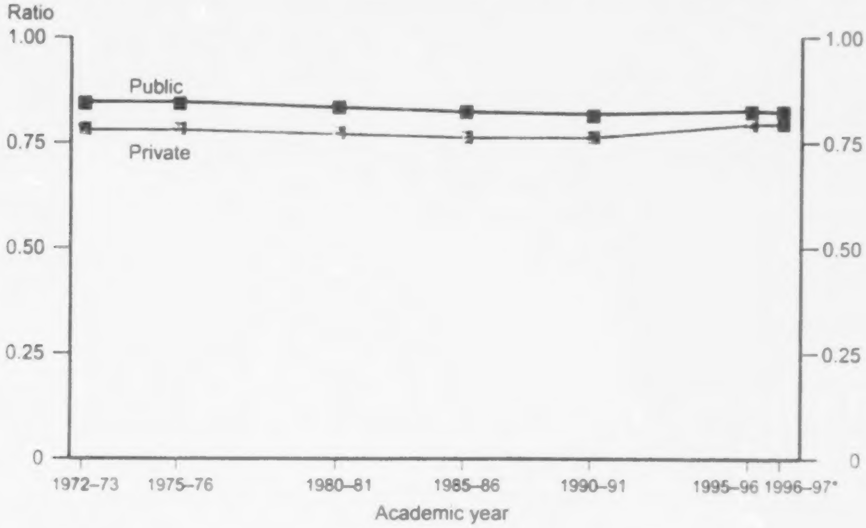
SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics 1998* (based on IPEDS "Salaries, Tenure, and Fringe Benefits of Full-Time Instructional Faculty" surveys), and unpublished tabulations.

Higher education faculty

Percentage of full- and part-time higher education faculty who were females, by control of institution: Fall 1987–95



Ratio of females' to males' average salary for full-time higher education faculty, by control of institution: Academic years 1972–73 to 1996–97



* Data for 1996–97 are for degree-granting institutions. Survey coverage is slightly wider than data for higher education institutions.

NOTE: Data are for instructional faculty on 9-month contracts. Data for 1987–88 through 1996–97 include imputations for nonrespondent institutions.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), "Fall Staff" survey, various years; and U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics 1998* (based on IPEDS "Salaries, Tenure, and Fringe Benefits of Full-Time Instructional Faculty" surveys), and unpublished tabulations.

Violent victimization of college students

Female college students were more likely to report being victims of rape and sexual assault, while male college students were more likely to report being victims of other violent crime.

With rising concerns about crime against college students, it is encouraging to find that there was a drop in the rate of reported violent victimization against male college students between 1995 and 1997. In spite of this drop, male college students were more likely than female students to report being victims of violent crime except for rape and sexual assault during the period. About two-thirds of the violent crime happening to both males and females involved simple assaults (attacks without weapons).

In 1995, 1996, and 1997, college students who lived on campus were more likely to report being victims of violent crime compared with students who lived off campus. However, most of the crimes reported occurred off campus, regardless of where students lived. Six percent of students who lived on campus and 5 percent who lived off campus reported off-campus crime, whereas 2 percent of students who lived on and 1 percent of students who lived off campus reported being victims of on-campus crime.

Rate of violent victimization[1] against college students, by sex and type of crime: 1995, 1996, and 1997

	1995			1996			1997		
Type of crime[2]	Total	Male	Female	Total	Male	Female	Total	Male	Female
Total	**7.2**	**9.1**	**5.5**	**6.3**	**8.4**	**4.5**	**6.0**	**7.5**	**4.7**
Rape/sexual assault	0.3	0.0	0.6	0.2	0.1	0.4	0.2	0.0	0.3
Robbery	0.7	1.0	0.5	0.6	0.7	0.5	0.5	0.6	0.4
Aggravated assault	1.2	1.9	0.7	1.6	2.6	0.9	1.3	2.0	0.6
Simple assault	4.9	6.3	3.8	3.8	5.1	2.8	4.1	4.9	3.4

Rate of violent victimization[1] against college students, by sex, type of crime, and location of crime by place of student residence: 1995–97[3]

Type of crime[2] and location of crime by student residence	Total	Male	Female
Total	**6.5**	**8.3**	**4.9**
Rape/sexual assault	0.2	0.0	0.4
Robbery	0.6	0.8	0.4
Aggravated assault	1.4	2.1	0.7
Simple assault	4.3	5.4	3.3
Location of crime by place of student residence			
Reside on campus	**7.4**	**9.6**	**5.0**
Crime on campus	1.7	2.4	1.1
Crime off campus	5.7	7.3	3.9
Reside off campus	**6.4**	**8.1**	**4.9**
Crime on campus	1.4	1.2	1.5
Crime off campus	5.0	6.9	3.4

[1] Represents the ratio of the number of crimes committed against college students to the total number of college students.

[2] Rape/sexual assault is unwanted sexual contact, forced sexual intercourse, or verbal threats of rape; robbery is the theft or attempted theft by force, with or without a weapon resulting with or without injury; aggravated assault is an attack or attempted attack with a weapon resulting in serious injury; simple assault is an attack or attempted attack without a weapon resulting with or without minor injury.

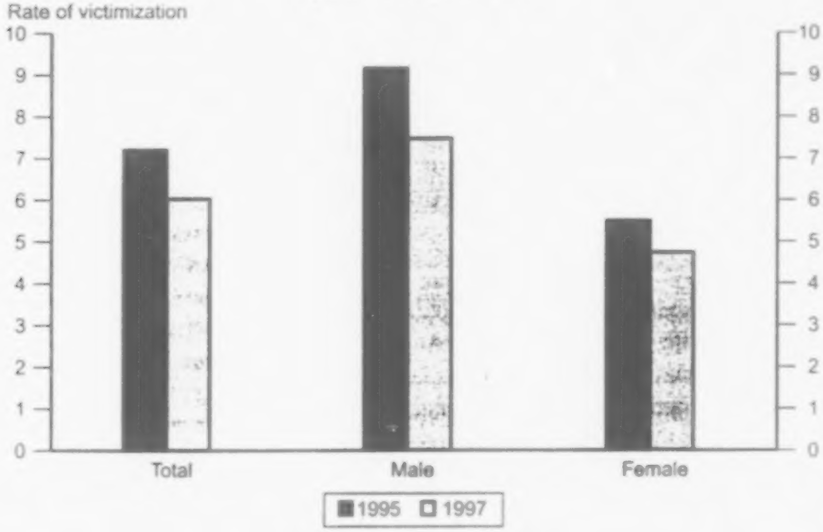
[3] Due to small sample sizes, crime data are aggregated for 3 years: 1995, 1996, and 1997. For example, the average rate of violent victimization against college students in 1995, 1996, and 1997 was 6.5 percent.

NOTE: Data represent crime that was reported by students and committed in the 6 months prior to the interview. Details may not to totals due to rounding. Percentages less than 0.05 are rounded to 0.0.

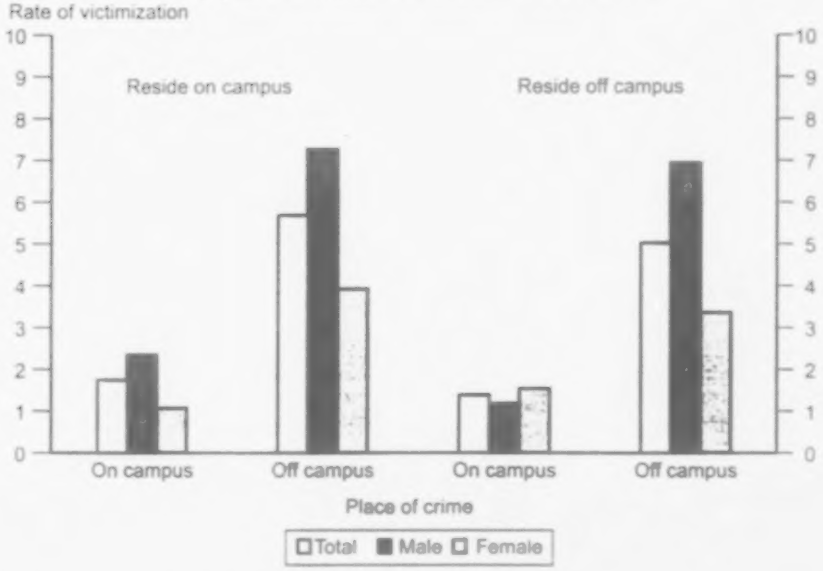
SOURCE: U.S. Department of Justice, Bureau of Justice Statistics, The National Crime Victimization Survey: 1995, 1996, and 1997.

Rate of violent victimization[1] against college students

By sex: 1995 and 1997



By sex and location of crime by place of student residence: 1995–1997[2]



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[1] Represents the ratio of the number of crimes committed against college students to the total number of college students.

[2] Due to small sample sizes, crime data are aggregated for 3 years: 1995, 1996, and 1997. For example, the average rate of violent victimization against college students in 1995, 1996, and 1997 is 6.5 percent.

NOTE: Data represent crime that was reported by students and committed in the 6 months prior to the interview.

SOURCE: U.S. Department of Justice, Bureau of Justice Statistics, The National Crime Victimization Survey: 1995,1996, and 1997.

Participation in collegiate sports

More females participate in collegiate sports now than in the past.

In recent years, females have had increased opportunities to participate in organized sports, from girls' soccer leagues to the professional women's basketball league. Although males still outnumber females in collegiate athletic participation, the differences have narrowed.

In school year 1996–97, 331,000 students participated in NCAA-sponsored sports—202,000 males compared with 129,000 females. Although males were more likely to participate in NCAA-sponsored sports than females, female participation increased 61 percent between 1982–83 and 1996–97; in contrast, male participation increased 12 percent during this period.

The graduation rate for male athletes in NCAA Division I programs is consistently lower than that for female athletes. About 47 percent of male athletes who entered school in 1984 graduated by 1990, and 52 percent of those who entered in 1992 graduated by 1998, compared with 62 and 68 percent of their female peers who entered college and graduated in those same years. Similar patterns emerged when graduation rates are examined by race. White male athletes who entered college in 1992 had a 58 percent graduation rate by 1998, compared with a 71 percent graduation rate for white female athletes. About 40 percent of black male athletes who entered college in 1992 graduated by 1998, compared with 53 percent of black female athletes.

Participants in NCAA-sponsored sports (all divisions), by sex: Academic years 1982–83 to 1996–97

	Number (in thousands)			Percentage distribution		
School year	Total	Male	Female	Total	Male	Female
1982–83*	260	180	80	100	69	31
1985–86	295	200	95	100	68	32
1990–91	277	185	93	100	67	33
1991–92	283	186	96	100	66	34
1992–93	287	187	100	100	65	35
1993–94	295	190	106	100	64	36
1994–95	300	189	111	100	63	37
1995–96	323	200	123	100	62	38
1996–97	331	202	129	100	61	39

* The 1982–83 school year was the first year for which detailed NCAA statistics were available.

SOURCE: National Collegiate Athletic Association, *NCAA Participation Statistics*, 1997.

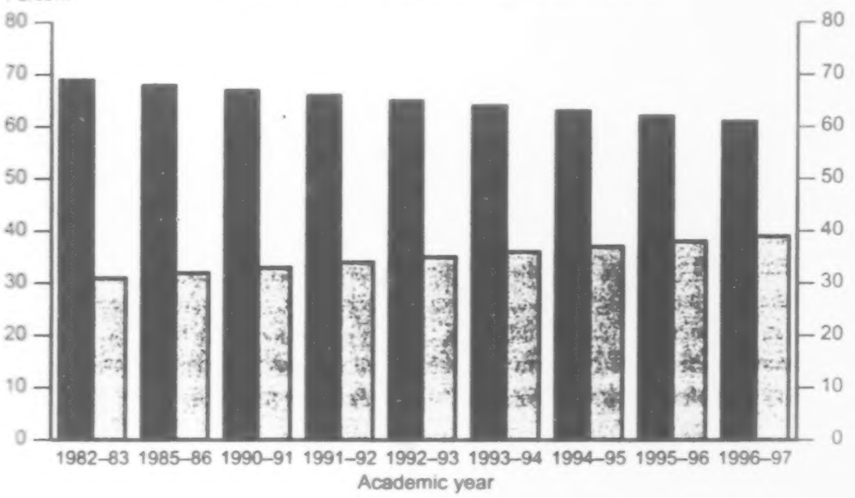
NCAA Division I graduation rates for college student athletes graduating within 6 years of entrance, by year student entered college, race–ethnicity, and sex: 1984–92

Year student entered college	Total		White		Black	
	Male	Female	Male	Female	Male	Female
1984	47	62	55	66	33	45
1985	48	61	55	65	34	44
1986	52	68	57	70	41	54
1987	53	67	58	69	43	53
1988	53	69	58	71	42	58
1989	53	67	59	70	43	58
1990	53	68	57	70	43	59
1991	51	67	56	70	41	56
1992	52	68	58	71	40	53

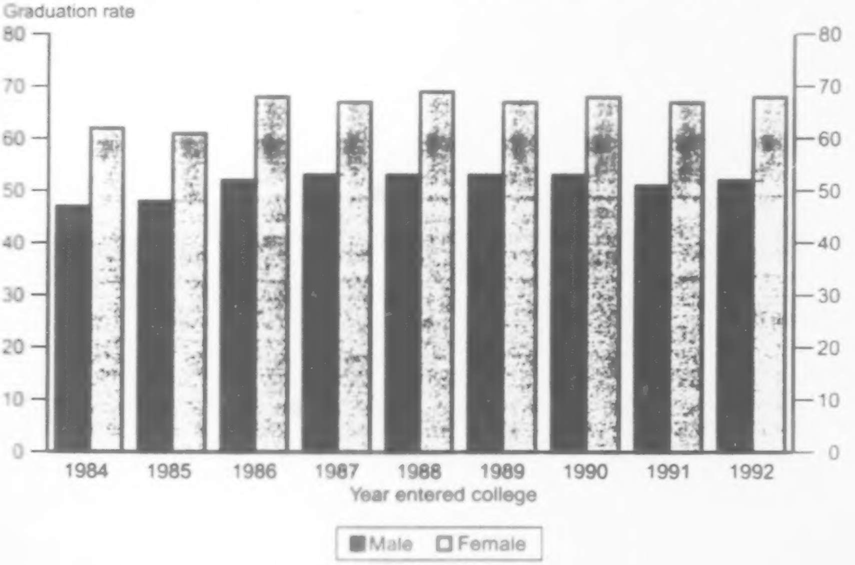
SOURCE: National Collegiate Athletic Association, *1999 NCAA Division I, II, and III Graduation-Rates Summary*, 1999.

Participants in NCAA-sponsored sports, by sex: Academic years 1982–83 to 1996–97

Percentage distribution of participants in NCAA-sponsored sports (all divisions), by sex: 1982–83 to 1996–97



NCAA Division I graduation rates for student athletes who graduated college within 6 years of entrance, by sex: Year of entry 1984–92



SOURCE: National Collegiate Athletic Association, *NCAA Participation Statistics*, 1997, and *1999 NCAA Division I, II, and III Graduation-Rates Summary*, 1999.

Educational attainment

Younger generations of females have attained equivalent levels of education compared with males.

Progress in the educational attainment of females is evident when attainment levels of males and females are compared across age groups. Younger generations of females, those age 39 or younger, essentially have attained parity or have surpassed males in attainment of bachelor's degrees. For example, in 1997, 24 percent of females ages 25–29 attained a bachelor's degree, 2 percentage points higher than the percentage of males who did so. In addition, a similar percentage of males and females ages 25–29 earned a master's degree or higher.

Similarly, equal or higher percentages of females ages 30–39 attained an associate's degree/some college or a bachelor's degree compared with their male peers, although their attainment rates of a master's degree or higher was lower than that of males (6 versus 8 percent for females and males, respectively).

Overall, females ages 25 or older earned a higher percentage of high school diplomas and associate's degrees than their male peers. However, the attainment rates of females at the bachelor's or master's degree levels were about 2 and 3 percentage points, respectively, lower than those of males. Nevertheless, with more females than males graduating with associate, bachelor's, and master's degrees in recent years, the educational gap between females and males has narrowed considerably (see the *Digest of Education Statistics 1998*).

There are differences in the educational attainment level of females and males when comparing attainment across race–ethnicity. White females ages 25–29 were more likely than their black or Hispanic peers to attain a bachelor's degree. In addition, white females were more likely than white males to earn a bachelor's degree.

Percentage of adult population ages 25 or older who attained various levels of education, by sex, age, and race–ethnicity: 1997

Age and race–ethnicity	Less than high school completion	High school completion	Associate degree/some college	Bachelor's degree	Master's degree or higher
			Male		
Age 25 and older	**18.0**	**32.1**	**23.7**	**16.8**	**9.4**
25–29	14.2	30.9	28.6	21.5	4.8
White	14.2	30.1	28.4	22.7	4.5
Black	14.8	41.5	31.7	9.5	2.5
Hispanic*	40.8	28.5	21.1	8.3	1.3
30–39	13.8	34.8	25.7	18.1	7.6
40–59	14.3	31.6	24.6	17.2	12.2
60 and older	31.5	30.5	17.0	11.8	9.2
			Female		
Age 25 and older	**17.8**	**35.3**	**25.2**	**15.4**	**6.3**
25–29	11.0	29.5	30.1	24.1	5.2
White	10.6	28.7	30.1	25.4	5.3
Black	12.9	37.8	32.9	14.2	2.2
Hispanic*	35.1	28.4	23.7	10.3	2.4
30–39	11.5	33.2	29.7	19.2	6.4
40–59	13.3	36.0	26.7	15.5	8.5
60 and older	32.8	38.3	17.0	8.1	3.8

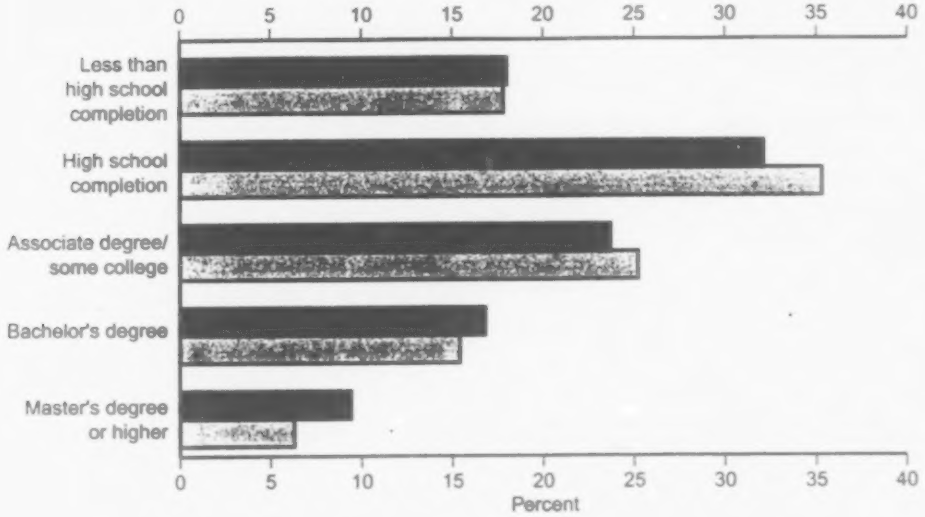
* People of Hispanic origin can be of any race.

NOTE: Included in the totals but not shown separately are people of other racial–ethnic groups. Details may not add to 100.0 due to rounding.

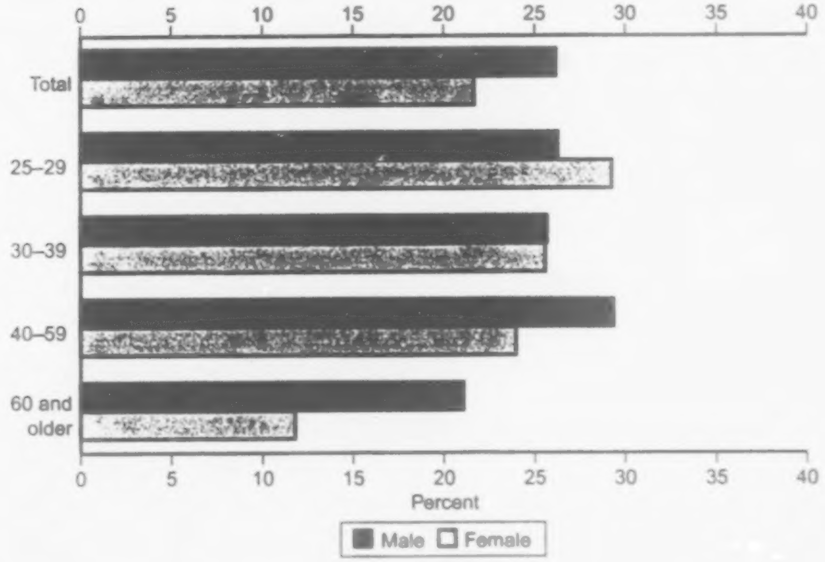
SOURCE: U.S. Department of Commerce, Bureau of the Census. Current Population Survey Report, *Educational Attainment in the United States*, March 1997.

Percentage of adult population ages 25 or older who attained various levels of education, by sex: 1997

By highest level of education attained



Adults who attained a bachelor's degree or higher, by age



SOURCE: U.S. Department of Commerce, Bureau of the Census, Current Population Survey Report, *Educational Attainment in the United States*, March 1997.

Employment of young adults

Employment rates for females have increased across all levels of educational attainment since the 1970s.

Between 1971 and 1997, the percentage of females ages 25–34 who were employed increased across all levels of educational attainment. This increase was particularly evident in the 1970s and less so in the 1980s. Since 1990, female employment rates have remained steady.

Between 1971 and 1997, the gap in employment rates of males and females narrowed. This narrowing is due to both the decline in the employment rates of males who did not attend college and the substantial increases in the employment rates of females at most levels of educational attainment. For example, in 1971, the employment rate gender gap for 25- to 34-year-olds with a high school diploma or GED was 51 percentage points, with 94 percent of males and 43 percent of females employed. By 1997, this gap had narrowed to 16 percentage points, with 86 percent of males and 70 percent of females employed. Additionally, the employment rate differences between males and females were smaller for those with higher levels of education than for those with lower levels for most years between 1971 and 1997.

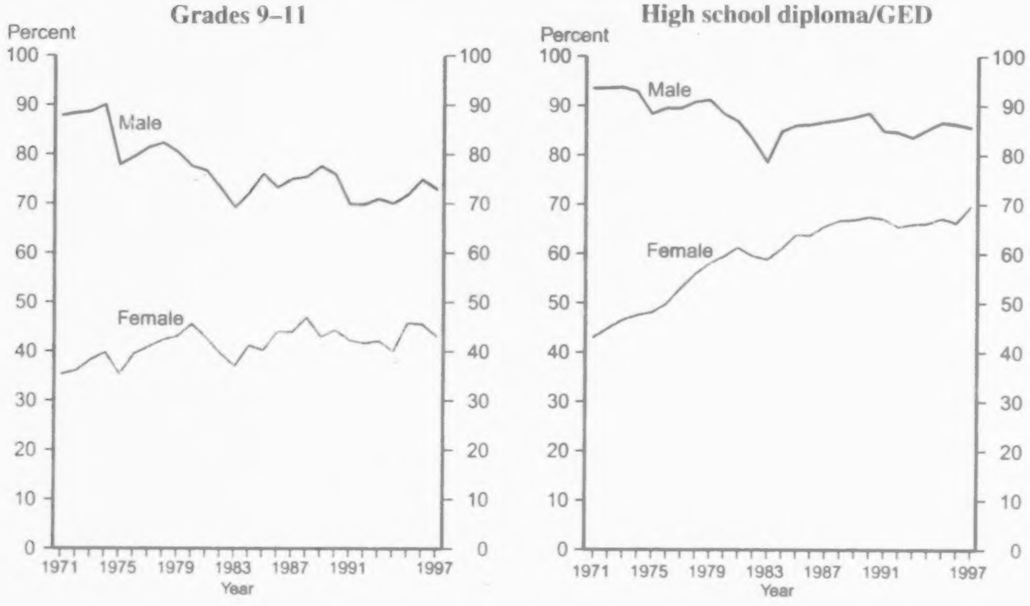
Percentage of 25- to 34-year-olds who were employed, by sex and years of school completed: March 1971–97

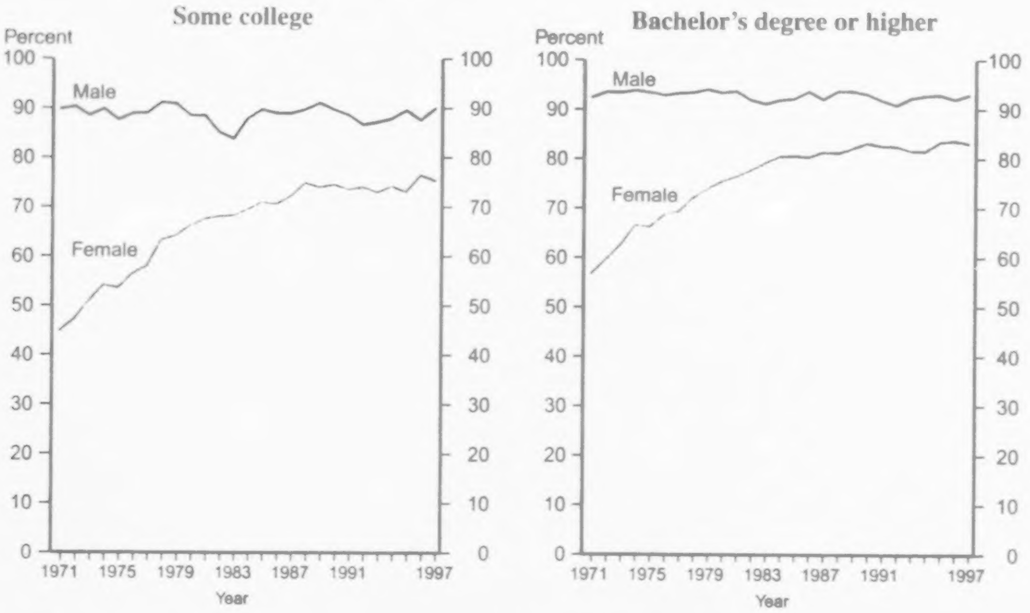
	Male				Female			
March	Grades 9–11	High school diploma or GED	Some college	Bachelor's degree or higher	Grades 9–11	High school diploma or GED	Some college	Bachelor's degree or higher
1971	87.9	93.6	89.9	92.5	35.4	43.1	44.9	56.9
1973	88.8	93.8	88.5	93.5	38.4	46.5	51.0	62.7
1975	78.0	88.4	87.7	93.5	35.4	48.1	53.6	66.3
1977	81.5	89.5	89.1	93.3	41.0	53.0	58.0	69.5
1979	80.5	91.3	90.9	94.1	43.2	58.0	64.2	74.0
1981	76.7	86.9	88.5	93.7	42.7	61.3	67.6	76.4
1983	69.3	78.6	83.8	91.1	37.1	58.8	68.3	79.2
1985	76.1	86.1	89.7	92.2	40.3	63.9	71.0	80.6
1987	75.0	86.8	89.0	92.1	44.0	65.6	72.2	81.4
1989	77.6	87.8	91.1	93.7	43.0	66.9	74.0	82.1
1990	76.0	88.6	89.7	93.0	44.4	67.5	74.5	83.2
1991	69.9	84.9	88.6	91.8	42.3	67.0	73.5	82.6
1992	69.9	84.7	86.7	90.9	41.7	65.4	74.0	82.5
1993	71.0	83.6	87.2	92.3	42.2	66.0	73.0	81.6
1994	70.0	85.2	88.0	92.8	40.1	66.2	74.3	81.6
1995	71.8	86.6	89.6	92.9	45.8	67.2	73.0	83.4
1996	74.9	86.3	87.6	92.1	45.5	66.3	76.4	83.7
1997	73.0	85.6	90.0	93.0	43.1	69.6	75.3	83.1

NOTE: The Current Population Survey (CPS) questions used to obtain educational attainment information were changed in 1992. See *The Condition of Education 1999*, Supplemental Notes, for details.

SOURCE: U.S. Department of Commerce, Bureau of the Census, Current Population Surveys, March, various years.

Percentage of 25- to 34-year-olds who were employed, by years of school completed: March 1971–97





NOTE: The Current Population Survey (CPS) questions used to obtain educational attainment information were changed in 1992. See *The Condition of Education 1999*, Supplemental Notes, for details.

SOURCE: U.S. Department of Commerce, Bureau of the Census, Current Population Surveys, March, various years.

Salaries of college graduates

Salaries of male college graduates generally exceed those of female graduates.

The annual median starting salaries of females who graduated from college in 1993 generally were lower than those of males in their graduating class. Whether there was a salary gap between males and females varied according to major fields of study. For example, for those who majored in humanities, computer sciences and engineering, and other technical or professional fields, males had a median starting salary that was similar to that of their female peers in 1993. For students who majored in business and management, males had a median starting salary that was about $4,000 more than that of their female peers.

About half of the difference in the overall median starting salaries between males and females is attributable to gender differences in choice of college major. When males' median annual starting salaries are weighted by females' major field concentrations (i.e., the percentage distribution of female college graduates who majored in various fields of study), the starting salary gap between males and females narrows.

Annual median starting salaries (in constant 1997 dollars) of 1993 college graduates, by sex and major field of study

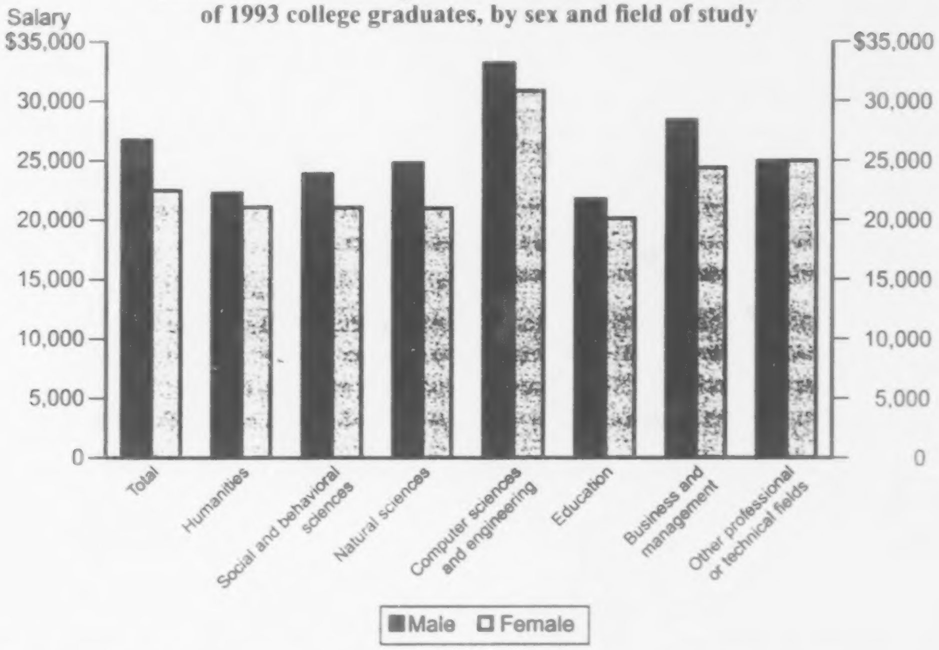
		Male		Female		
Major field of study	All graduates	Percentage in field	Median starting salary	Percentage in field	Median starting salary	Female/ male ratio
Total	**$24,156**	**100**	**$26,738**	**100**	**$22,506**	0.84
Humanities	21,469	9	22,307	12	21,100	0.95
Social and behavioral sciences	21,984	13	23,885	15	21,061	0.88
Natural sciences	22,347	7	24,798	6	20,991	0.85
Computer sciences and engineering	32,802	16	33,148	3	30,866	0.93
Education	20,456	6	21,737	17	20,114	0.93
Business and management	26,658	32	28,382	23	24,363	0.86
Other professional or technical	24,959	17	24,938	23	24,974	1.00

NOTE: Data are for bachelor's degree recipients who were working full time and who were not enrolled in postsecondary education 1 year after graduation. Details may not add to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 Baccalaureate and Beyond Longitudinal Study, First Follow-up (B&B:93/94).

Salaries of college graduates

Annual median starting salaries* (in constant 1997 dollars) of 1993 college graduates, by sex and field of study



* Data are for bachelor's degree recipients who were working full time and who were not enrolled in postsecondary education 1 year after graduation.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 Baccalaureate and Beyond Longitudinal Study, First Follow-up (B&B:93/94).

Median earnings of young females compared with males

The earnings gap between male and female college graduates has narrowed over time.

Wage and salaries are influenced by many factors, including the employer's perception of the productivity and availability of workers with different levels of education and the economic conditions in the industries that typically employ workers with different levels of education.

The annual median starting salaries of females generally were lower than those of males in their graduating class (see *Indicator 37*). However, the earnings gap between male and female college graduates has narrowed over time. For example, in 1970 females ages 25–34 with a bachelor's degree had median annual earnings that were equivalent to 57 percent of that of their male peers. By 1997, females in this age group with bachelor's degrees had median earnings that were equivalent to 78 percent of that of their male peers.

Females with a bachelor's degree generally earned an amount closer to their male counterparts than females with a high school credential. For example, in 1997, females with a high school education earned 64 percent of males peers' earnings compared with 78 percent for female bachelor's degree recipients.

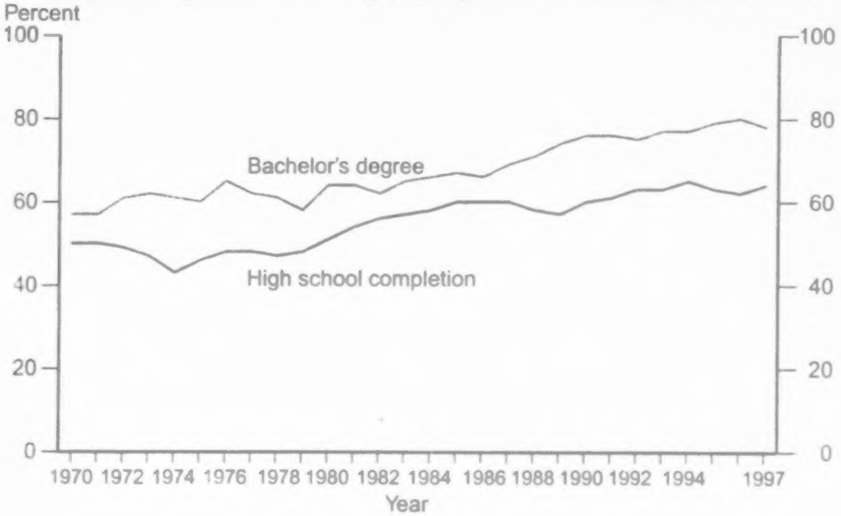
Annual earnings (in constant 1997 dollars) of young people 25–34-years-old with a high school education or a bachelor's degree, by sex: 1970–97

	High school			Bachelor's degree		
	Annual median earnings		Female's earnings as proportion of male's	Annual median earnings		Female's earnings as proportion of male's
Year	Male	Female		Male	Female	
1970	$34,771	$17,255	0.50	$41,370	$23,375	0.57
1971	35,146	17,636	0.50	40,527	22,898	0.57
1972	36,697	17,947	0.49	40,550	24,857	0.61
1973	37,334	17,546	0.47	39,843	24,515	0.62
1974	34,627	14,752	0.43	37,027	22,410	0.61
1975	32,135	14,804	0.46	36,119	21,712	0.60
1976	32,404	15,432	0.48	34,895	22,577	0.65
1977	32,617	15,689	0.48	35,532	21,912	0.62
1978	32,842	15,325	0.47	34,680	21,156	0.61
1979	32,195	15,462	0.48	34,408	20,094	0.58
1980	29,941	15,361	0.51	32,252	20,570	0.64
1981	27,892	14,978	0.54	32,063	20,412	0.64
1982	25,913	14,624	0.56	32,946	20,409	0.62
1983	26,063	14,789	0.57	33,211	21,564	0.65
1984	26,690	15,445	0.58	33,574	22,094	0.66
1985	25,673	15,494	0.60	34,734	23,235	0.67
1986	25,799	15,422	0.60	37,221	24,635	0.66
1987	26,196	15,795	0.60	36,744	25,202	0.69
1988	26,812	15,513	0.58	37,009	26,215	0.71
1989	26,144	14,936	0.57	35,188	26,064	0.74
1990	24,482	14,798	0.60	35,443	26,892	0.76
1991	23,840	14,491	0.61	34,528	26,159	0.76
1992	22,746	14,306	0.63	34,450	25,769	0.75
1993	22,585	14,150	0.63	34,388	26,533	0.77
1994	22,919	14,907	0.65	34,076	26,247	0.77
1995	22,527	14,272	0.63	32,691	25,678	0.79
1996	22,962	14,318	0.62	32,196	25,658	0.80
1997	23,762	15,154	0.64	32,875	25,558	0.78

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

Median earnings of young females compared with males

Median annual earnings of female wage and salary workers ages 25–34 as a percentage of male earnings, by highest level of education: 1970–97



SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

Postsecondary earnings advantage

Females generally realize a greater earnings advantage from earning a bachelor's degree or higher.

Earnings are positively associated with educational attainment so that annual median earnings are higher for those with more education. For example, the 1997 median earnings of full-time year-round wage and salary workers ages 25–34 who had not completed high school were lower than the earnings of their counterparts who had completed high school (26 and 24 percent lower for males and females, respectively). Males and females who had completed some college education earned 16 and 14 percent more, respectively, than those who had completed no more than a high school education.

Although earnings of females who worked full-time year-round were generally lower than those of males, the earnings advantage of attending college was generally higher for females in most recent years. Between 1994 and 1997, the earnings advantage for females ages 25–34 with some college or a bachelor's degree or higher (relative to their peers who had completed a high school education) was generally higher than that for males. For example, the earnings advantage for females with a bachelor's degree or higher ranged from 61 to 71 percent, whereas for males it ranged from 52 to 56 percent during the period.

Ratio* of annual median earnings of males and females with various levels of educational attainment to those with a high school diploma, for full-time year-round wage and salary workers ages 25–34: 1970–97

	Male				Female			
Year	Grades 9–11	High school completion	Some college	Bachelor's degree or higher	Grades 9–11	High school completion	Some college	Bachelor's degree or higher
1970	0.86	1.00	1.11	1.27	0.79	1.00	1.12	1.45
1975	0.86	1.00	1.08	1.19	0.78	1.00	1.13	1.37
1980	0.79	1.00	1.05	1.19	0.78	1.00	1.09	1.34
1985	0.78	1.00	1.13	1.37	0.78	1.00	1.16	1.47
1990	0.79	1.00	1.18	1.44	0.77	1.00	1.23	1.64
1991	0.79	1.00	1.18	1.56	0.69	1.00	1.19	1.56
1992	0.77	1.00	1.17	1.57	0.76	1.00	1.19	1.59
1993	0.80	1.00	1.16	1.61	0.75	1.00	1.19	1.67
1994	0.77	1.00	1.12	1.52	0.75	1.00	1.19	1.65
1995	0.81	1.00	1.11	1.56	0.78	1.00	1.23	1.71
1996	0.74	1.00	1.10	1.52	0.79	1.00	1.19	1.61
1997	0.74	1.00	1.16	1.54	0.76	1.00	1.14	1.61

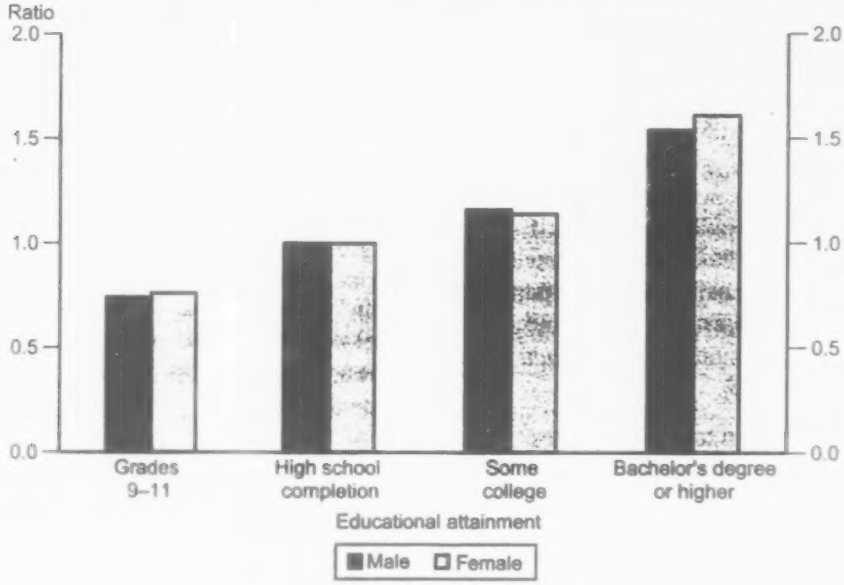
* For example, the ratio of 1.54 in 1997 for males whose highest education level was a bachelor's degree or higher means that they earned 54 percent more than males who had a high school diploma or GED. The ratio of 0.79 in 1997 for males whose highest education level was grades 9–11 means that they earned 21 percent less than males who had a high school diploma or GED. See *The Condition of Education 1998* for further discussion.

NOTE: The Current Population Survey (CPS) questions used to obtain educational attainment were changed in 1992. See *The Condition of Education 1999*, Supplemental Notes, for details.

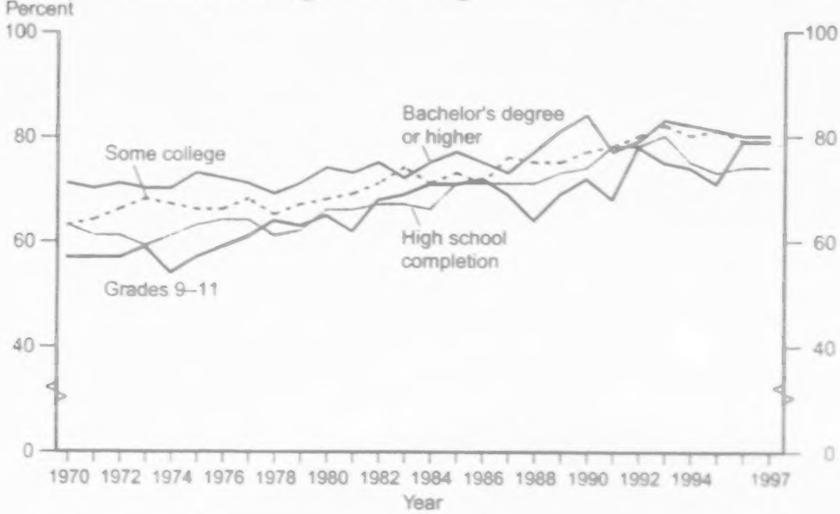
SOURCE: U.S. Department of Commerce, Bureau of the Census, Current Population Surveys, March, various years.

Postsecondary earnings advantage

Ratio[1] of median earnings of those with various levels of educational attainment to those with a high school diploma, for full-time year-round wage and salary workers ages 25–34, by sex: 1997



Annual median earnings of females ages 25–34 who were full-time year-round wage and salary workers, as a percentage of median earnings of males ages 25–34:[2] 1970–97



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[1] For example, the ratio of 1.54 in 1997 for males whose highest education level was a bachelor's degree or higher means that they earned 54 percent more than males who had a high school diploma or GED. The ratio of 0.79 in 1997 for males whose highest education level was grades 9–11 means that they earned 21 percent less than males who had a high school diploma or GED. See *The Condition of Education 1998* for further discussion.

[2] Data were calculated by dividing the annual median salary of women by the annual median salary of men at a given level of education.

NOTE: The Current Population Survey (CPS) questions used to obtain educational attainment were changed in 1992. See *The Condition of Education 1999*, Supplemental Notes, for details.

SOURCE: U.S. Department of Commerce, Bureau of the Census, Current Population Surveys, March, various years.

Participation in adult education

Females are more likely than males to participate in adult education.

Females participated in adult education activities—defined as courses provided by educational institutions and not corporate training—more frequently than males in 1995. Although participation levels differed among different types of adult education activities, males and females were equally likely to participate in basic skills education. However, males were more likely to participate in work-related programs, and females were more likely to participate in credential-seeking and personal development activities (*The Condition of Education 1998*, p. 58).

For both males and females, the rate of participation in adult education increased with higher levels of education. For adults with a high school diploma, 27 percent of males and 34 percent of females participated in adult education in 1995. Among adults with a bachelor's degree or higher, 55 percent of males and 62 percent of females were involved in some adult education activity.

Employed adults were also more likely to participate in adult education than unemployed adults. Employed females were more likely than employed males to be enrolled, specifically in work-related or personal development programs (Data not shown).

Percentage of adults participating in adult education activities during the previous 12 months, by type of activity, sex, and educational attainment: 1995

		Type of adult education activity			
Educational attainment	Total	Basic skills[1]	Credential	Work related	Personal development
			Male		
Total	**38.2**	**1.2**	**5.6**	**21.8**	**15.8**
Educational attainment					
Grades 9–12[2]	25.0	5.9	2.4	7.9	9.6
High school diploma or GED	27.4	0.8	3.7	14.4	11.2
Vocational/technical school	39.8	1.1	5.3	22.2	14.6
Some college	44.8	0.5	10.2	22.2	19.8
Associate's degree	52.3	0.4	11.5	31.7	21.5
Bachelor's degree or higher	54.7	—	6.4	37.6	22.6
			Female		
Total	**42.1**	**1.2**	**6.5**	**20.2**	**23.5**
Educational attainment					
Grades 9–12[2]	21.2	5.4	1.1	6.0	11.1
High school diploma or GED	33.7	0.7	3.4	13.9	19.4
Vocational/technical school	43.0	0.3	5.5	21.6	24.8
Some college	53.2	0.5	13.7	22.4	30.0
Associate's degree	59.7	0.3	10.4	32.4	32.8
Bachelor's degree or higher	62.4	—	9.3	38.3	34.1

— Not applicable.

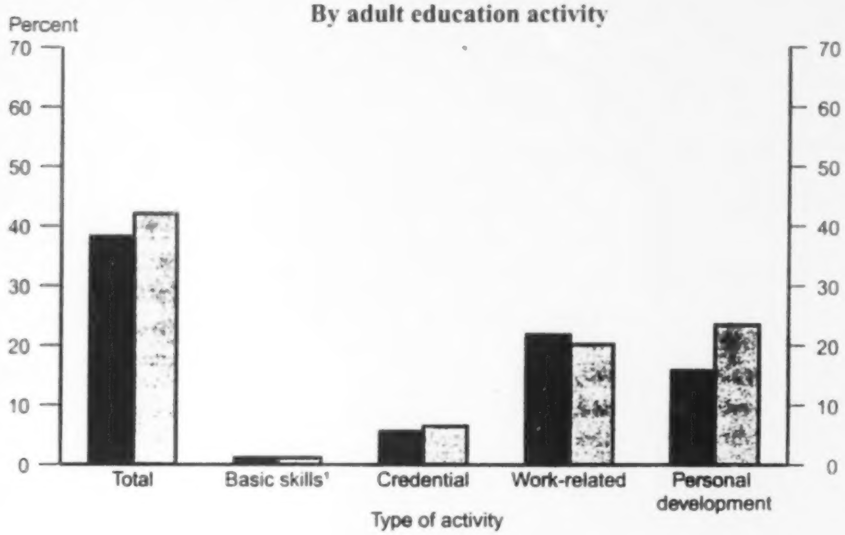
[1] Only adults who had not received a high school diploma or equivalent, who had received a high school diploma in the past 12 months, or who had received a high school diploma in a foreign country were asked about their participation in the basic education/General Educational Development (GED) activities.

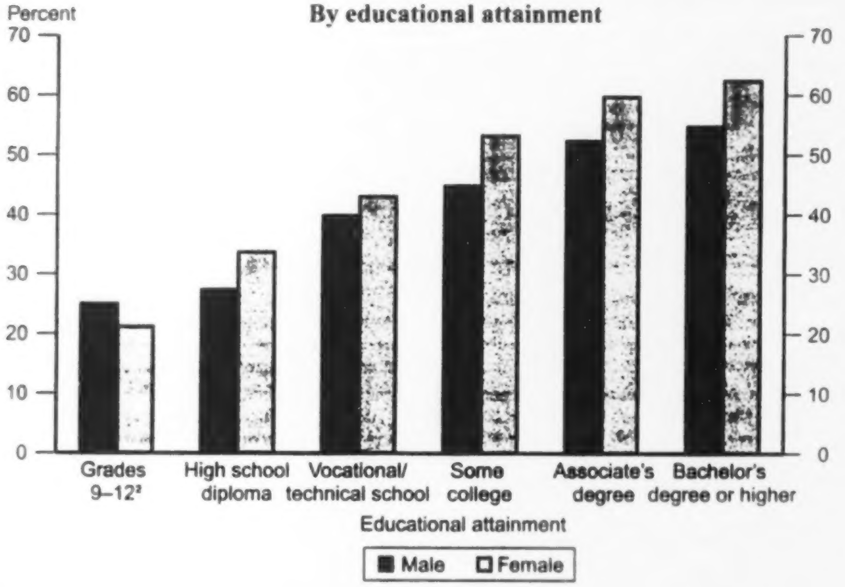
[2] Includes adults whose highest education level was grades 9–12 who had not received a high school diploma.

NOTE: The participation rate of adults age 17 or older was determined by their involvement in one or more of six types of adult education activities. Percentages may not add to totals because adults may have participated in more than one type of activity (9 percent). Adults who participated in apprenticeship programs and English as a Second Language programs were included in the total but are not shown separately. Adults who reported that they had participated only as full-time credential seekers were not included as participants in adult education.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *The Condition of Education 1998*.

Percentage of adults participating in adult education activities during the previous 12 months, by type of activity, sex, and educational attainment: 1995


By adult education activity


By educational attainment

[1] Only adults who had not received a high school diploma or equivalent, who had received a high school diploma in the past 12 months, or who had received a high school diploma in a foreign country were asked about their participation in the basic education/General Educational Development (GED) Activities.

[2] Includes adults whose highest education level was grades 9–12 who had not received a high school diploma.

NOTE: The participation rate of adults age 17 or older was determined by their involvement in one or more of six types of adult education activities. Percentages may not add to totals because people participated in more than one type of activity (9 percent). Adults who participated in apprenticeship programs and English as a Second Language programs were included in the total but are not shown separately. Adults who reported that they had participated only as full-time credential seekers were not included as participants in adult education.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *The Condition of Education 1998*.

Labor force participation

The labor force participation for females is lower than that for males in every country at every educational level.

In the large, industrialized countries shown here, labor force participation rates for females ages 25–64 were generally positively associated with educational attainment level; females with higher educational attainment levels had higher labor force participation rates than those with lower levels of educational attainment.

With the exception of Italy, labor force participation rates for females in large, industrialized countries were similar. Over 60 percent of females ages 25–64 participated in the labor force in 1995. Yet, in all six of these countries, males ages 25–64 were more likely than females to participate in the labor force, regardless of educational attainment. This gender gap in participation rates generally narrows as educational attainment increases. For example, the gap between the labor force participation rates of males and females with less than an upper-secondary education averaged about 27 percentage points, whereas the gap between the participation rates of those with a university education averaged 9 percentage points.

Labor force participation rates of 25- to 64-year-olds in large, industrialized countries, by educational attainment and sex: 1995

	All levels		Early childhood, primary, and lower secondary		Upper secondary		Nonuniversity higher education		University	
Country	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Canada	86	70	74	47	88	71	90	78	93	85
France	85	68	71	53	90	75	94	85	92	81
Germany	86	65	79	46	85	69	90	82	93	83
Italy	81	45	76	33	87	66	—	—	92	82
United Kingdom	87	70	73	55	89	74	91	82	93	87
United States	88	71	72	47	88	71	92	82	94	83

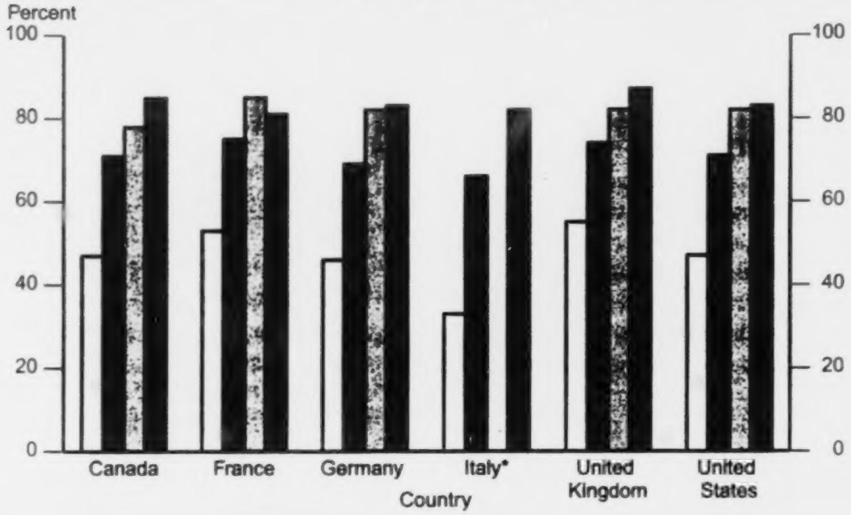
— Data not available.

NOTE: The labor force participation rate for a particular age group is equal to the percentage of people in the population of the same age group who are either employed or unemployed, where these terms are defined according to the guidelines of the International Labor Office (ILO). The classification of the levels of education is based on the International Standard Classification of Education (ISCED).

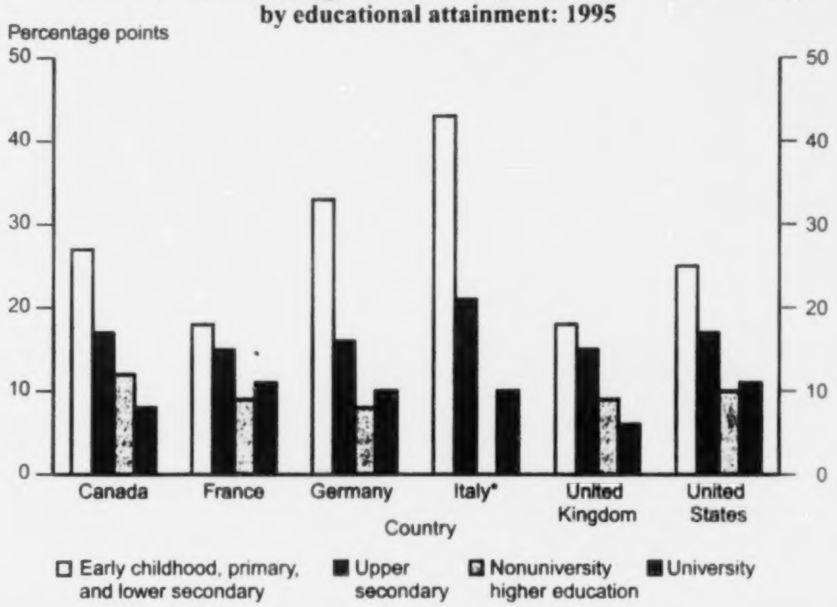
SOURCE: Organisation for Economic Co-operation and Development, Center for Educational Research and Innovation, *Education at a Glance, OECD Indicators, 1997*, 1997.

Labor force participation

Labor force participation rates for females ages 25–64 in large, industrialized countries, by educational attainment: 1995



Percentage-point difference in the labor force participation rates of males and females ages 25–64 in large, industrialized countries, by educational attainment: 1995



* Data for nonuniversity higher education for Italy not available.

NOTE: The labor force participation rate for a particular age group is equal to the percentage of people in the population of the same age group who are either employed or unemployed, where these terms are defined according to the guidelines of the International Labor Office (ILO). The classification of the levels of education is based on the International Standard Classification of Education (ISCED).

SOURCE: Organisation for Economic Co-operation and Development, Center for Educational Research and Innovation, *Education at a Glance, OECD Indicators, 1997*, 1997.

Education and relative earnings

Education is positively associated with earnings for both females and males in large, industrialized countries.

Increasing global competition and technological innovations have raised the skill requirements in many sectors of industrialized economies. The earnings differential, defined as the earnings ratio between a particular education level and secondary education, measures the current financial incentives for an individual to invest in further education. Data presented here show a strong positive relationship between education and earnings, with the United States showing comparable relationships with other industrial countries. For example, earnings for both males and females ages 25–64 with some college education were higher than earnings for those with a high school education. Females experienced a higher earnings premium than that of males at this education level. The earnings advantage for females ranged from 13 to 51 percent; for males, it ranged from 7 to 32 percent.

Relative earnings of those with a college education compared with those with a high school education are also higher for females than for males in Canada, the United Kingdom, and the United States, where females with a college education earned 63, 95, and 76 percent more, respectively, than females with a high school education. For males, the percentages were 48, 53, and 67 percent, respectively.

Although females ages 25–64 with some college education experienced a higher relative earnings advantage than their male peers, females still earned less than males with a similar level of education attainment. In all six countries shown, at all levels of education, women ages 30–44 had earnings which ranged from about 49 to 76 percent of those of males. (See table E4.2 from *Education at a Glance, OECD Indicators, 1997*, 1997.) Relative earnings of females (as a percentage of males) with a college degree in the United States were lower compared with those in Canada and France but higher than those in Germany, Italy, and the United Kingdom. Some of the difference in earnings between the sexes may be due to the differences in college majors and in career choices, differences in the amount of time spent in the labor market, and the relatively higher percentage of females working part time.

Relative earnings of people ages 25–64 with income from employment (high school education = 100*), by sex, and mean annual earnings of females ages 30–44 as a percentage of mean earnings of males, by country and level of educational attainment: 1995

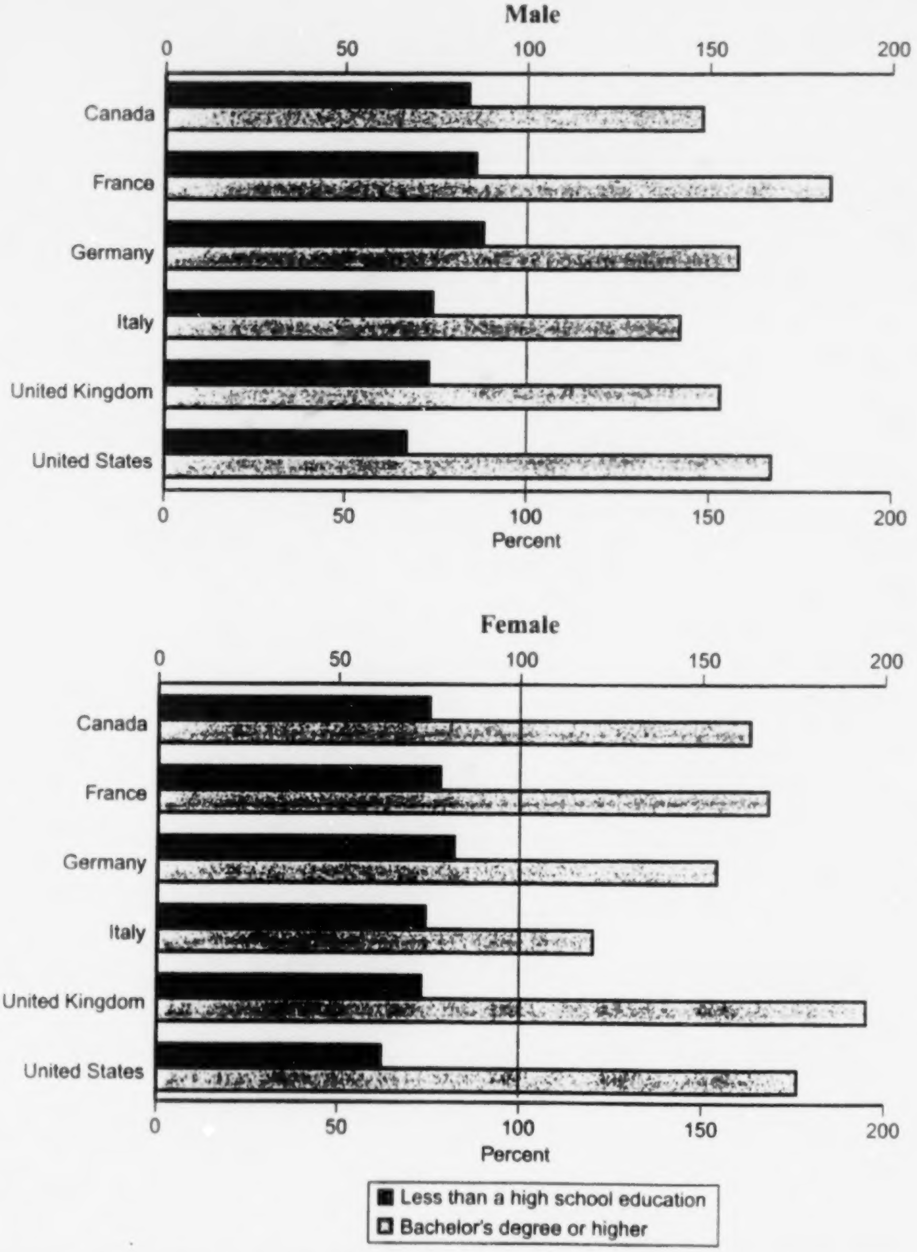
	Relative earnings of people ages 25–64 with income from employment (high school education = 100*)									Mean annual earnings of females ages 30–44 as a percentage of mean earnings of 30–44-year-old males	
	Less than high school education			Some college			Bachelor's degree or higher				
Country	Total	Male	Female	Total	Male	Female	Total	Male	Female	Less than high school	Bachelor's degree or higher
Canada	87	84	75	110	108	113	156	148	163	57	76
France	80	86	78	128	132	137	175	183	168	65	71
Germany	78	88	82	111	107	116	163	158	154	59	67
Italy	77	74	74	—	—	—	134	142	120	71	65
United Kingdom	75	73	73	132	114	151	179	153	195	49	64
United States	68	67	62	119	118	126	174	167	176	56	69

— Not available.

* In the United States, the ratio of 167 for males with a bachelor's degree or higher means that they earned 67 percent more than males with a high school education. The ratio of 67 for males with less than a high school education means that they earned 33 percent less than males with a high school education.

SOURCE: Organisation for Economic Co-operation and Development, Center for Educational Research and Innovation, *Education at a Glance, OECD Indicators, 1997*, 1997.

Relative earnings of people ages 25–64 with income from employment (high school education = 100*), by country, level of educational attainment, and sex: 1995



* For example, in the United States, the ratio of 167 for males with a bachelor's degree or higher means that they earned 67 percent more than males with a high school education. The ratio of 67 for males with less than a high school education means that they earned 33 percent less than males with a high school education.

SOURCE: Organisation for Economic Co-operation and Development, Center for Educational Research and Innovation, *Education at a Glance, OECD Indicators, 1997*, 1997.

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International educational attainment

The educational attainment of females in the United States is relatively high compared with that of females in other countries.

Sex differences in educational attainment were generally small in the United States and other large, industrialized countries for those ages 25–34. The differences in attainment for those with at least a secondary education ranged from 4.3 percentage points (favoring females) in Italy to 4.3 percentage points (favoring males) in Germany, compared with a 2.1 percentage point difference (favoring females) in the United States. At ages 45–54, the differences between females' and males' attainment of at least a secondary education ranged from 14 percentage points in the United Kingdom (favoring males) to 0.3 percentage points in the United States (favoring females). The small gender gaps in the United States reveal a historical pattern of relative equality in attainment of at least a secondary education in the United States.

In 1995, females ages 25–34 in the United States were much more likely to have completed a higher education degree than females of the same age group in other large, industrialized countries. One-quarter of females in this age group had completed higher education in the United States, compared with 20 percent in Canada and 14 percent or less in the other countries.

The disparities between females' and males' educational attainment were narrower or reversed for those ages 25–34 than for those ages 45–54 (except for Japan for higher education). This narrower disparity for younger females indicates a trend toward a greater equality for females in educational attainment in more recent years.

Percentage of the population in large, industrialized countries who completed secondary and higher education, by age, sex, and country: 1995

	Ages 25–34				Ages 45–54			
	Male		Female		Male		Female	
Country	Secondary education[1]	Higher education	Secondary education[1]	Higher education	Secondary education[1]	Higher education	Secondary education[1]	Higher education
Canada	82.4	19.2	85.4	19.7	72.0	20.0	70.8	14.5
France	87.3	13.7	83.8	14.3	67.2	12.3	56.7	8.2
Germany	91.0	13.7	86.7	11.3	90.1	18.9	77.3	8.8
Italy	46.9	7.8	51.2	8.6	31.9	9.4	23.8	6.4
Japan[2]	89.3	34.2	91.8	11.5	62.4	15.8	56.9	2.5
United Kingdom	87.5	16.3	84.7	13.1	78.8	14.9	64.4	6.9
United States	86.1	25.1	88.2	24.9	86.1	32.7	86.4	23.6

[1] Includes individuals who had completed at least a secondary education.

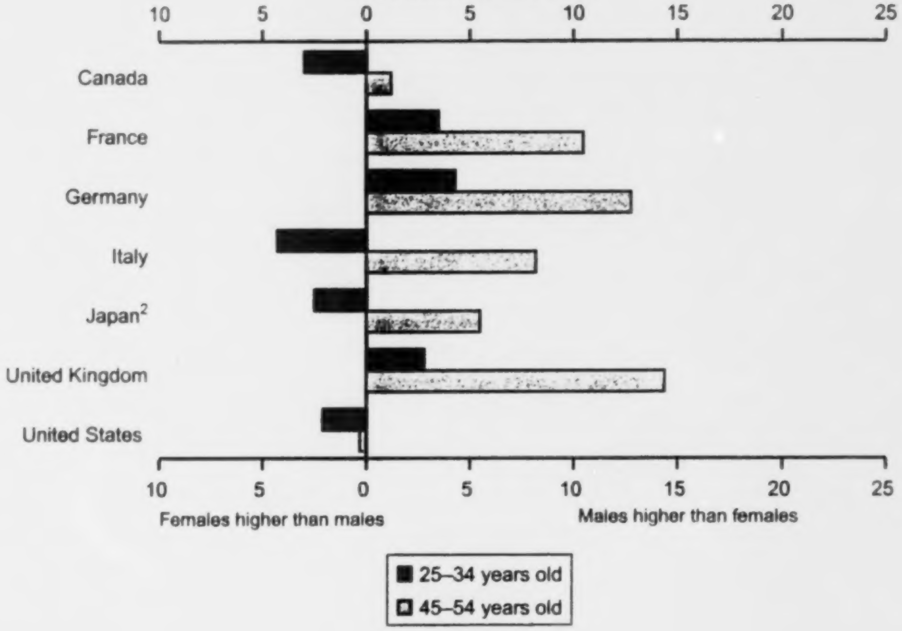
[2] Data are for 1989.

NOTE: In the United States, completing secondary education is defined as graduating from high school or earning a GED; completing higher education is defined as earning a bachelor's degree or higher. Individuals for whom educational attainment is unknown are excluded from the analysis.

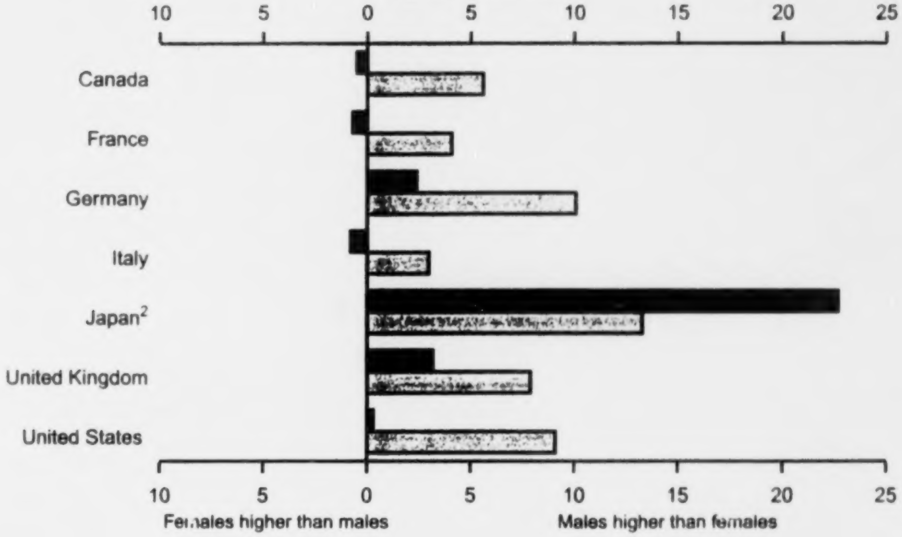
SOURCE: Organisation for Economic Co-operation and Development, International Indicators Project.

Percentage point difference in the educational attainment rates of males and females ages 25–34 and 45–54 in large, industrialized countries, by country and educational attainment: 1995

Secondary education[1]



Higher education



[1] Includes individuals who had completed at least a secondary education.

[2] Data are for 1989.

NOTE: In the United States, completing secondary education is defined as graduating from high school or earning a GED; completing higher education is defined as earning a bachelor's degree or higher. Individuals for whom educational attainment is unknown are excluded from the analysis.

SOURCE: Organisation for Economic Co-operation and Development, International Indicators Project.

International mathematics and science performance

Sex differences favoring males in mathematics and sciencce generally appear at the end of secondary school across countries.

The general trend that males outperform females in mathematics and science at the end of secondary level can be seen when comparing proficiency scores across countries. Though different countries participated in the Third International Mathematics and Science Study (TIMSS) at different grade levels and scores are not always directly comparable, some general patterns can be observed.

In general, males and females had similar scores in mathematics at the 4th-grade level in all countries and at the 8th-grade level in the United States and most other countries in 1995. In science, males outscored females in about 40 percent of the countries (including the United States) at the 4th-grade level and in about 70 percent of countries (excluding the United States) at the 8th-grade level.

Males tended to have higher scores in earth science, physics, and chemistry than females, but male and female scores in life science and environmental issues/value of sciences were similar. However, males and females in the United States performed similarly in all five content areas.

By the end of secondary schooling (12th grade in the United States), differences that favor males were evident in both mathematics and science in most countries. However, in the United States, the mathematics scores of 12th-grade males and females were similar. In science, although males outscored females, the gender gap for science was among the smallest in all of the participating countries.

Sex differences[1] in mathematics and science proficiency scores,[2] by grade[3] and country: 1995

	4th grade		8th grade		End of secondary	
Country	Mathematics	Science	Mathematics	Science	Mathematics	Science
Japan	[4]8	[4]14	[4]9	[4]17	(5)	(5)
France	(5)	(5)	6	[4]16	[4]38	[4]39
Germany	(5)	(5)	3	[4]18	[4]29	[4]35
Korea	[4]15	[4]14	[4]17	[4]24	(5)	(5)
Canada	3	8	-4	[4]12	[4]34	[4]32
Australia	2	[4]13	-5	10	[4]30	[4]34
Singapore	-10	4	-2	9	(5)	(5)
England	5	7	4	[4]20	(5)	(5)
United States	2	[4]12	5	9	11	[4]23

[1] Sex differences were calculated by subtracting females' average scores for a country from the males' average scores for that country.

[2] Score range for 4th-grade mathematics and science was 200–850. Score range for 8th- and 12th-grade mathematics and science was 200–800.

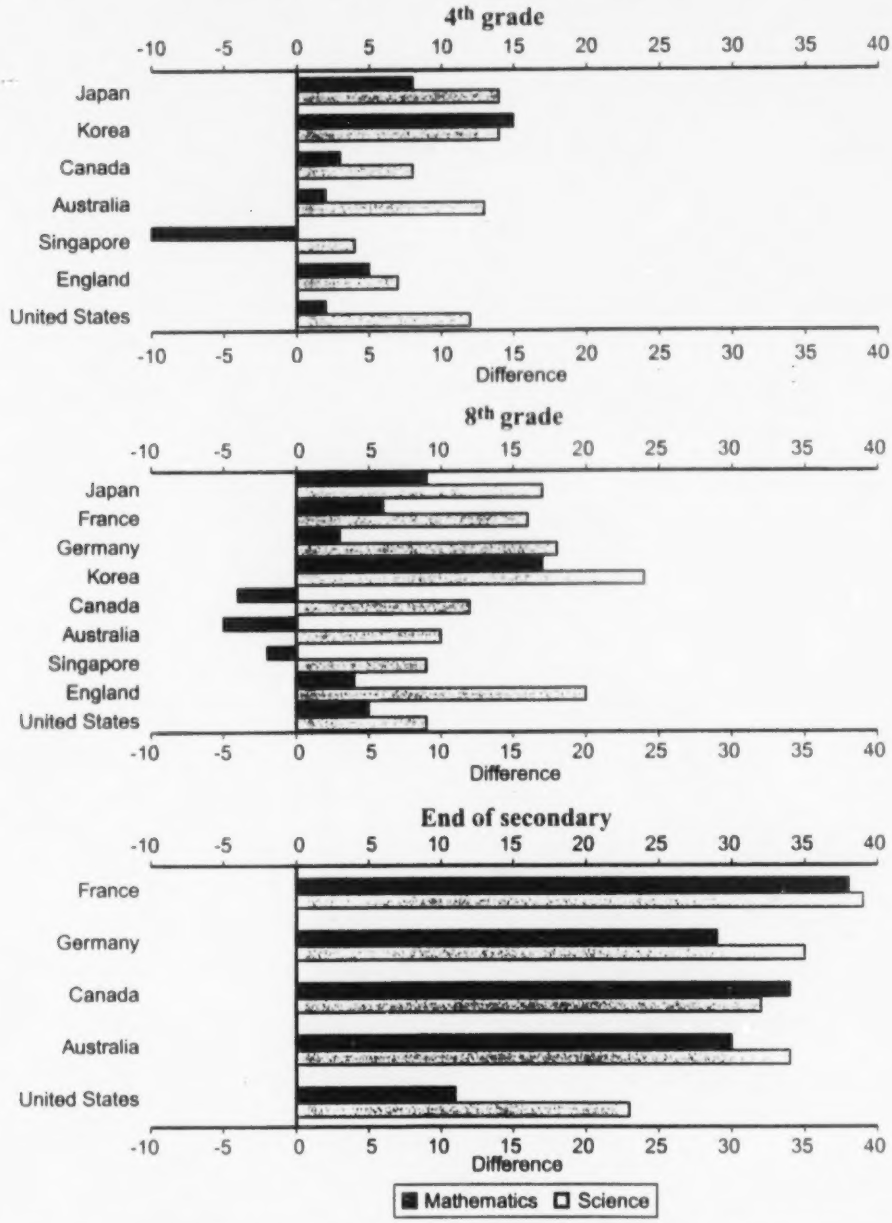
[3] Students so designated were in the 4th or 8th grade, respectively, in most nations. Students designated as "End of secondary" were in their final year of secondary school, regardless of the type of school or program.

[4] Scores of males and females were significantly different.

[5] Country did not participate at this level of testing.

SOURCE: International Association for the Evaluation of Educational Achievement, TIMSS International Study Center, *Mathematics Achievement in the Primary School Years*, *Science Achievement in the Middle School Years*, *IEA's Third International Mathematics and Science Study*, 1996; U.S. Department of Education, National Center for Education Statistics, *Pursuing Excellence: A Study of U.S. Fourth-Grade Mathematics and Science Achievement in International Context*, 1997; *Pursuing Excellence: A Study of U.S. Eighth-Grade Mathematics and Science Teaching, Learning, Curriculum, and Achievement in International Context: Initial Findings from the Third International Mathematics and Science Study*, 1996; and *Pursuing Excellence: A Study of U.S. Twelfth-Grade Mathematics and Science Achievement in International Context*, 1998.

Sex differences[1] in mathematics and science proficiency scores,[2] by grade[3] and country: 1995



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[1] Sex differences were calculated by subtracting females' average scores for a country from the males' average scores for that country.

[2] Score range for 4th-grade mathematics and science was 200–850. Score range for 8th- and 12th-grade mathematics and science was 200–800.

[3] Students so designated were in the 4th- or 8th-grade, respectively, in most nations. Students designated as "End of secondary" were in their final year of secondary school, regardless of the type of school or program.

SOURCE: International Association for the Evaluation of Educational Achievement, TIMSS International Study Center, *Mathematics Achievement in the Primary School Years, Science Achievement in the Middle School Years, IEA's Third International Mathematics and Science Study,* 1996; U.S. Department of Education, National Center for Education Statistics, *Pursuing Excellence: A Study of U.S. Fourth-Grade Mathematics and Science Achievement in International Context*, 1997; *Pursuing Excellence: A Study of U.S. Eighth-Grade Mathematics and Science Teaching, Learning, Curriculum, and Achievement in International Context: Initial Findings from the Third International Mathematics and Science Study*, 1996; and *Pursuing Excellence: A Study of U.S. Twelfth-Grade Mathematics and Science Achievement in International Context*, 1998.

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